STUART-HOWLAND CO.
BOSTON

NUNC COGNOSCO EX PARTE



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Illustrated Catalogue

of

Electrical Supplies

No. 3



Stuart-Howland Co.

261-281 Devonshire St.
4-5 Winthrop Sq.

Boston

Tel.: Br. Ex., 6840 Main



STUART-HOWLAND CO.

Cor. Winthrop Sq. and Devonshire St.

BOSTON

Copyright, 1907
By Stuart-Howland Co.

Introduction.

THE extraordinary success of our first general supply catalogue alphabetically arranged throughout, warrants our issuing this in similar form without further comment. The demand for the former catalogue necessitated five separate editions, and we believe this will be found a very decided improvement. It is issued with a view to supplying a want for a single handy book of reference in which the purchasing departments of electrical construction, supply, and telephone companies, central stations, and railways may quickly find listed, and in most cases illustrated, practically everything required in their business.

We have used the original manufacturers' lists largely, as being more familiar to the user than any we might devise.

We shall be glad if our customers and friends will aid us by calling attention to any errors.

In general, all goods are listed under the name by which they are best known, but to avoid entering more than once we have cross indexed very thoroughly with such other names as have occurred to us.

STUART-HOWLAND COMPANY.

Telegraph Code.

Telegraph inquiries received by us in code will be replied to in the same manner, not otherwise.

Quotations.

ABAFT . . . . . At what price can you furnish .....?
ABASH . . . . . At what price and how soon can you furnish .....?
ABBESS . . . . . Wire quotation on .....
ABDUCE . . . . . Quote by return mail on .....
ABET . . . . . Quote us F. O. B. ..... on .....

Answers on Quotations.

BABEL . . . . . We quote for immediate acceptance.....
BAIZE . . . . . Quotation is F. O. B. Boston on .....
BALM . . . . . Quotation is F. O. B. .....
BANNS . . . . . Not understood, send fuller particulars.

Orders.

CANDOR . . . . . Ship immediately by express .....
CANICA . . . . . Ship immediately by express C. O. D. .....
CANINE . . . . . Ship immediately by freight .....
CANKER . . . . . Ship immediately by freight with sight draft attached to a bill of lading ..
CANON . . . . . Send immediately by mail .....
CANTEL . . . . . Duplicate our order .....
CANTER . . . . . Enter our order per your quotation of .....
CANTO . . . . . Enter our order for .....
CAPER . . . . . Enter order, shipping directions to follow for .....
CAPON . . . . . Enter order if you can ship within .....
CAPSULE . . . . . Cancel order for .....

Answers on Orders.

DEAN . . . . . Cannot accept order at price named for .....
DEBATE . . . . . Too late to cancel order for .....
DECADE . . . . . We accept your order for shipment in .....
DECANT . . . . . We have in stock for immediate shipment .....
DECLAIM . . . . . If ordered at once we can ship .....
DECOY . . . . . We cannot change order now.
DEDUCE . . . . . Referring to your order for .....

Regarding Shipments.

EAGLE . . . . . How soon can you ship .....?
EAGLET . . . . . Wire us if you cannot ship immediately our order.....
EARL . . . . . Have you in stock for immediate shipment .....?
EARTH . . . . . If ordered immediately, how soon can you ship .....?
EAVES . . . . . Have you shipped our order .....?
EBONY . . . . . What have you shipped on our order .....?
ECLIPSE . . . . . When will you ship our order .....?
EDDY . . . . . By what route was our order shipped?
EDEN . . . . . Hold shipment of our order .....
EDICT . . . . . Ship what you can and balance soon as possible on our order .....
EDIFY . . . . . Ship the whole order in one lot.
EDUCE . . . . . Trace immediately our order .....
EGOTIST . . . . . We have shipped all of your order except .....
EGRESS . . . . . We have shipped part of your order and will send balance in .....
EJECT . . . . . Your order was shipped by .....
ELATE . . . . . We have started tracer on your order .....



Cup and Pin.



Acorn.

ABSOLUTE Cut-out Board (see Board, hanger).

ACCUMULATORS (see Batteries, storage).

ACORNS.

Acorns, Cups and Pins

(see Chain).

Brass acorns for use on electric gas lighting burner pulls, pull sockets, etc.

No. S-1. Acorns, cups and pins .....per doz. sets $ .60
No. S-2. Acorns only.....per doz. .40
No. S-3. Cups and pins only.....per doz. pr. .20



No. 9357.



No. 107.

ADAMS Secondary Generator (see G).

ADAPTERS.

Socket Adapters.

No. 9357. Old style socket adapter, screws into a T-H socket, so that it will take Edison lamps. It may be easily removed. Standard package 500.each $ .06

No. 107. New style adapter; is similar, except that it locks into socket and cannot be removed. Standard package 500 .....each .06

No. 35699. Candelabra adapter; fits a standard Edison socket so that it will take a candelabra base lamp. Standard package 100 .....each .10



No. 35699.



No. 1403.

ADJUSTABLE Bit Handle (see Drills, electricians').

ADJUSTABLE Track Brush Holder (see H).

ADJUSTERS.

Cord Adjusters

(see also Handles, socket).

Wood and Fibre Styles.

No. 1403. Black enameled wood, cord ball, with ⅛-in. holes.....per 100 $1.40

No. 4635. Black enameled wood, cord ball, with ⅜-in. holes, for reënforced or show window cord .....per 100 2.00

No. 1405. Black enameled wood peanut, used without cutting cord, ⅛-in. holes, per 100 1.40

No. 4634. Ditto, with ⅜-in. holes for reënforced cord.....per 100 2.00

No. 5559. Fibre adjuster, for regular cords, per100 1.40

No. 1. Universal adjuster, best quality hardwood bobbin, on which cord may be wound to keep it out of the way. Standard size, 3⅜ in., black enameled, per 100 10.00

No. 2. Factory size, 5⅛ in., black enameled, per 100 12.00

No. 3. Show window cord size .....per 100 45.00



No. 1405.



No. 5559.



No. 235.



Universal Adjuster.

Dale Adjusters.

No. 310. Dale adjusters, consisting of a balance weight and two pulleys, with 9 feet of flexible cord.....each $2.50



No. 310.

Dow Adjusters.

No. 235. Dow adjusters, polished brass....each $2.39
No. 236. Dow adjusters, nickel plated.....each 2.39
No. 237. Dow adjusters, bronze .....each 2.39

Operates same as a curtain fixture, winding the cord up on a drum inside controlled by a spring.



Two-Ball Adjuster.



Innovate Adjuster.

ADJUSTERS.

Cord Adjusters (Continued).

Two-Ball Adjuster.

Style A. "Two-Ball" adjuster, black, gold bronze, or aluminum finish ..... each, $ .75
Special finish ..... ,, 1.00

Style B. "Two-Ball" adjuster, polished or oxidized brass or nickel ..... each, 1.25
Special finish ..... ,, 1.50
Canopies, extra ..... ,, .35

Morse Adjuster.

Morse cord adjuster consists of a small black composition case in which is wound a stout cord, the end of which is fastened to the lamp cord, the case itself being attached further up on the cord. Automatic, like a curtain.

No. 1. For lamp cord ..... per doz., $6.00
,, 2. For reënforced cord ..... ,, 7.50

Webster Adjuster.

Webster adjuster attaches to cord and to shade holder so as to hold lamp at a convenient angle.

Per Doz.
No. 1. For lamp cord $2.50
,, 2. ,, No. 18 reënforced cord, N. C. 2.50
,, 3. ,, ,, 16 ,, ,, ,, ... 2.50

Innovate Adjuster.

The Innovate cord adjuster with its friction ball enables one to instantly adjust height of lamp. Can be furnished for show window cord also.

Style A. Plain finish ..... each, $ .35
,, 2. Copper oxidized finish ..... ,, .50

Electrogrip.

An adjuster which will take hold of either cord or outside objects. Jaws are heavily insulated. Is readily attached to pigeon hole of desk, parts of machinery, etc.

No. S-4. Electrogrip ..... each, $ .15



Morse and Webster Adjusters.



Electrogrip.

ADVANCE Burners (see B).
ADZE (see Axes).
"AFTERNOON Tea" (see Kettles).
AIR Heaters (see Radiators).
AJAX Battery Motor (see M).
ALARM, Burglar (see Springs).
ALARM Clock, Electric (see Outfits).
ALARM, Tank (see Floats).
ALCOHOL Lamps and Torches (see T).
ALCOHOL, Wood.

Wood Alcohol.

No. S-5 Wood Alcohol ..... per gal., $2 00
(To order only; not carried in stock.)

ALLEN Solder Stick (see Sticks).
ALUMINUM Reflector (see Shades).
ALWAYS Level Street Hood (see Hood).
AMERICAN Circular Loom (see Conduit).

AMMETERS, see following headings:

Ammeters, Battery.
,, Portable.
,, Switchboard.
,, Recording.

AMMETERS, Battery (see also Voltmeter and Volt-ammeter).



S.-H. Battery Ammeter.



K. & D. Battery Ammeter.

S.-H. Battery Ammeter.

A small pocket instrument about the size of a watch, reading to 25 amperes and especially recommended for use in testing dry batteries, etc., for gas engines and automobiles.

No. S-6. S.-H. Ammeter . . . each, $3.60

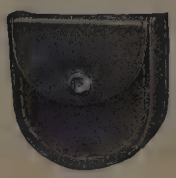
K. & D. Battery Ammeter.

A small battery ammeter for boy's experimental work. Scale 0 to 15 amperes.

No. S-7. K. & D. Battery Ammeter . . . . . each, $2.00



Kent Ammeter.



Leather Case.

Kent Pocket Ammeters.

A dead beat ammeter, especially designed for testing dry batteries for gas engine work.

Each instrument calibrated by hand to standardized apparatus. Furnished with hand-sewed leather case.

No. S-8 . . . 0 to 20 amperes . . . each, $4.00
,, S-9 . . . 0 ,, 30 ,, . . . ,, 4.00



Connecticut Ammeter.



Crown Pocket Ammeter.

Connecticut Pocket Ammeters.

The magnets in this instrument are properly aged and will not change. No button to press. Accurate and durable. Leather case with snap lock furnished.

No. 0803, 0 to 15 amperes . . each, $3.50
,, 803, 0 ,, 30 ,, . . ,, 4.00

NOTE. — The cut shows the combination instrument listed under "Volt-ammeters" but the Ammeter is the same style.

Crown Pocket Ammeters.

These French instruments have been improved in every way possible to make them more durable and serviceable. May be used in any position.

No. S-10, 0 to 10 amperes, each, $4.40
,, S-10½, 0 ,, 15 ,, ,, 4.40
,, S-11, 0 ,, 20 ,, ,, 4.40
,, S-12, 0 ,, 25 ,, ,, 4.75

AMMETERS, Battery (Continued).



Crown Flange Ammeter.

Crown Flange Ammeters.

Similar to the pocket instruments in construction, but adapted to go on dashboard, charging panel, etc.

2½-inch Diameter.

No. S-13	0 to 15	amperes	each, $4.85
,, S-14	0 ,, 20	,,	,, 4.85
,, S-15	0 ,, 25	,,	,, 5.50

3-inch Diameter.

No. S-16	0 to 15	amperes	each, $5.85
,, S-17	0 ,, 20	,,	,, 5.85
,, S-18	0 ,, 25	,,	,, 6.25



Pignolet Pocket Ammeter.

Pignolet Pocket Ammeters.

A rectangular case instrument of the permanent magnet type, with high accuracy and equal scale divisions. Specially calibrated hand-made scale, jewel bearings, hardened steel pivots.

No. 220	0 to 1	amp.,	in. .02	amp. divs	each, $10.00
,, 221	0 ,, 4	,,	,, tenth	,, ,,	,, 10.00
,, 222	0 ,, 10	,,	,, fourth	,, ,,	,, 10.00
,, 223	0 ,, 15	,,	,, half	,, ,,	,, 10.00
,, 224	0 ,, 30	,,	,, single	,, ,,	,, 10.00
Leather case, extra					,, 1.00
Dead beat attachment, extra					,, .50

Other ranges to order.



Pignolet Flange Ammeter.

Pignolet Flange Ammeters.

These instruments are enclosed in polished nickel case 5 inches in diameter by 1½ inches deep, with bolts on back which serve to carry the current. Other finishes to order.

No. 350	0 to 5	amps.,	tenth amp.	divs	each, $11.00
,, 351	0 ,, 10	,,	fifth	,, ,,	,, 11.00
,, 352	0 ,, 20	,,	half	,, ,,	,, 11.00
,, 353	0 ,, 30	,,	single	,, ,,	,, 11.00

AMMETERS, Portable (see Volt-ammeters, Voltmeters, Watt meters, etc.).


G. E. Pocket Ammeter.

G. E. Pocket Ammeters, Types O and OS.*
Direct and Alternating Current.

The pocket type of instrument has been developed to meet the demand for a compact, accurate, and high-grade line of instruments for general testing. They are constructed on the well-known Thomson inclined coil principle, jewel mounted and protected by iron bases and covers from stray magnetic fields. The fluctuations of the pointer are damped by an air vane. Dimensions, $4\frac{1}{4}$ x $3\frac{9}{16}$ x $2\frac{3}{8}$ inches. Black oxide finish, mahogany base.

No. 7975	2	amperes	each, $25.00
,, 28790	5	,,	,, 25.00
,, 7976	10	,,	,, 25.00
,, 37901	15	,,	,, 25.00
,, 40694	20	,,	,, 25.00
,, 40695	30	,,	,, 25.00
,, 40696	40	,,	,, 30.00
,, 40697	60	,,	,, 30.00
,, *40698	80	,,	,, 30.00
,, *33742	100	,,	,, 30.00

*Made in back connected form only, for small switchboards.

AMMETERS, Portable (Continued).

Thomson Inclined Coil Portable Ammeters, Direct and Alternating Current.



No. 6456.

Made especially for alternating current work, but may be used with good results on direct current by taking reversed readings. Jewel mounted, air vane damper, polished hard wood carrying case with leather handle, polished black oxide finish.

No.	6461	2	amperes	each, $40.00
,,	28789	5	,,	,, 40.00
,,	6456	10	,,	,, 40.00
,,	3332	15	,,	,, 40.00
,,	6457	25	,,	,, 40.00
,,	6458	50	,,	,, 40.00
,,	6459	100	,,	,, 50.00
,,	6460	200	,,	,, 50.00

Weston Standard Portable Ammeter, Direct Current, Model 1.

Extremely compact and serviceable instruments. Made in three sizes in order to provide room for the self-contained shunts. These shunts are of copper and as the effect of the current is to heat the shunt more than the moving coil an error will be introduced making readings slightly inaccurate if the instruments are left in circuit for a great length of time. They are especially adapted to testing and should not be left continuously in circuit.



Weston Standard Portable Ammeter, Model 1.

No.	Range Amps.	No. Scale Divs.	Value Each Scale Div. Amps.	Readable to	Price.
1	5	100	$\frac{1}{20}$	$\frac{1}{200}$ amp.	$65.00
2	15	150	$\frac{1}{10}$	$\frac{1}{100}$,,	65.00
3	25	100	$\frac{1}{4}$	$\frac{1}{40}$,,	65.00
4	50	100	$\frac{1}{2}$	$\frac{1}{20}$,,	65.00
5	100	100	1	$\frac{1}{10}$,,	70.00
6	150	150	1	$\frac{1}{10}$,,	75.00
7	200	100	2	$\frac{1}{5}$,,	80.00
8	250	125	2	$\frac{1}{5}$,,	80.00
9	300	150	2	$\frac{1}{5}$,,	80.00
10	400	80	5	$\frac{1}{2}$,,	90.00
11	500	100	5	$\frac{1}{2}$,,	90.00

Weston Portable Ammeter Direct Current, Model 45.

These instruments are designed to meet the demand for a low priced ammeter of sufficient accuracy for station work and general testing. Iron case with wooden carrying box and hinged cover. same style as Model 45 Voltmeter. Dimensions, $8\frac{1}{4}$ in. wide, $8\frac{1}{2}$ in. long, $4\frac{3}{4}$ in. high.



Weston Model 45.

		Range Amps.	Value Each Scale Div. Amps.	Price
No.	S-19	0 to 5	$\frac{1}{20}$	$25.00
,,	S-20	0 ,, 15	$\frac{1}{10}$	25.00
,,	S-21	0 ,, 25	$\frac{1}{5}$	25.00
,,	S-22	0 ,, 50	$\frac{1}{2}$	25.50
,,	S-23	0 ,, 100	1	26.50
,,	S-24	0 ,, 150	1	27.00
,,	S-25	0 ,, 200	2	28.00
,,	S-26	0 ,, 250	2	28.25
,,	S-27	0 ,, 300	2	28.25
,,	S-28	0 ,, 400	5	28.50
,,	S-29	0 ,, 500	5	29.50

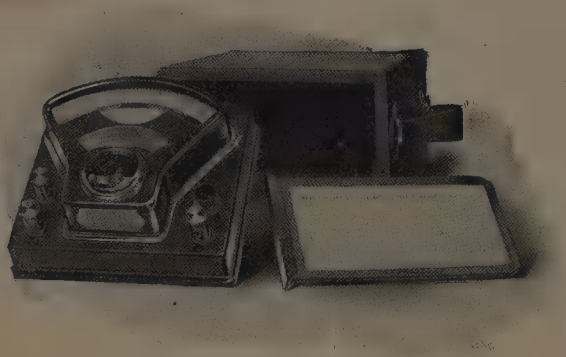
Ammeters of higher ranges to order only.

AMMETERS, Portable (Continued).

Weston Standard Portable Mil-Ammeter, Direct Current, Model 1.

These instruments afford a means of quickly obtaining accurate and reliable measurements such as have hitherto been unattainable.

In the double scale mil-ammeters a change from one scale to the other is made by changing the connection on the left of the instrument from one binding post to the other, and by moving the switch to the corresponding position.



Weston Standard Portable Mil-Ammeter.

Single Scale Instruments.

No.	Range Mil-Amps.	No. Scale Divs.	Value Each Div. Mil-Amps.	Readable to	Price.
0	150	150	1	$\frac{1}{10}$ mil-amp.	$50.00
1	300	150	2	$\frac{1}{5}$,,	50.00
2	600	150	4	$\frac{2}{5}$,,	50.00
3	1000	100	10	1 ,,	50.00
4	1500	150	10	1 ,,	55.00

Double Scale Instruments.

No.	Range Mil-Amps.	No. Scale Divs.	Value Each Div. Mil-Amps.	Readable to	Price.
5	500	100	5	$\frac{1}{20}$ mil-amp.	$60.00
	50		$\frac{1}{2}$		
6	500	100	5	$\frac{1}{100}$,,	60.00
	10		$\frac{1}{10}$		

No. 7. Same range and capacity as No. 6 but supplied with small resistance box or multiplier having two coils. When this is connected in series with the instrument binding posts marked 10, the lower scale may be read directly in volts, a full scale deflection being secured with 10 or 100 volts, according to the coil of the multiplier used.....$75.00

Whitney Portable H. W. Type Ammeters For Direct or Alternating Current.



Whitney H. W. Type.

These instruments operate on the hot wire principle and are extremely accurate and dead beat. Size of average instrument is 6 by 6½ by 3½ inches. Weight about 3 pounds net.

Price includes polished hard-wood carrying case with lock and handle for each instrument.

No.	Range.	Price.
851	25 to 200 mil-amps. in 2 mil-amps. divisions...	$50.00
853	$\frac{1}{5}$,, 1 amp. ,, $\frac{1}{100}$ amp. ,, ...	50.00
855	2 ,, 10 ,, ,, $\frac{1}{10}$,, ,, ...	50.00
857	5 ,, 25 ,, ,, $\frac{1}{4}$,, ,, ...	50.00
859	10 ,, 50 ,, ,, $\frac{1}{2}$,, ,, ...	51.00
861	20 ,, 100 ,, ,, 1 ,, ,, ...	52.00
863	50 ,, 200 ,, ,, 2 ,, ,, ...	53.00
865	50 ,, 300 ,, ,, 2 ,, ,, ...	56.00

NOTE.—Cut shows a voltmeter; ammeter is same pattern.

AMMETERS, Switchboard.



Style A.

Style A, Norton Direct Current Ammeters.

No. S-30	0 to	10	amps.	each,	$30.00
,, S-31	0 ,,	15	,,	,,	30.00
,, S-32	0 ,,	25	,,	,,	30.00
,, S-33	0 ,,	50	,,	,,	30.00
,, S-34	0 ,,	75	,,	,,	30.00
,, S-35	0 ,,	100	,,	,,	30.00
,, S-36	0 ,,	150	,,	,,	32.00
,, S-37	0 ,,	200	,,	,,	34.00
,, S-38	0 ,,	250	,,	,,	36.00
,, S-39	0 ,,	300	,,	,,	
,, S-40	0 ,,	400	,,	,,	
,, S-41	0 ,,	500	,,	,,	
,, S-42	0 ,,	600	,,	,,	

Diameter, 6⅞ inches; depth, 2 $\frac{13}{16}$ inch
Made for either back or front connec
Finish, lacquered brass.
Furnished with connector, either fo
strip. Unless specified, round wire
furnished.

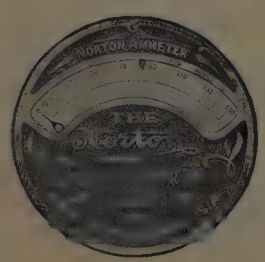


Style B.

Style B, Norton Direct Current Am

No. S-43	0 to	10	amps.		
,, S-44	0 ,,	15	,,		
,, S-45	0 ,,	25	,,		
,, S-46	0 ,,	50	,,		
,, S-47	0 ,,	75	,,		
,, S-48	0 ,,	100	,,	,,	
,, S-49	0 ,,	150	,,	,,	
,, S-50	0 ,,	200	,,	,,	
,, S-51	0 ,,	250	,,	,,	
,, S-52	0 ,,	300	,,	,,	36.
,, S-53	0 ,,	400	,,	,,	38.0
,, S-54	0 ,,	500	,,	,,	40.00
,, S-55	0 ,,	600	,,	,,	42.00

Diameter, 6⅞ inches; depth, 2 $\frac{13}{16}$ inches.
Made only for back connections.
Finish, oxidized black.
Furnished with connector, either for round wire or flat strip. Unless specified, round wire connector will be furnished.



Style C.

Style C, Norton Direct Current Ammeters.

Dead Beat.

No. S-56	0 to	10	amps.	each,	$30.00
,, S-57	0 ,,	15	,,	,,	30.00
,, S-58	0 ,,	25	,,	,,	30.00
,, S-59	0 ,,	50	,,	,,	30.00
,, S-60	0 ,,	75	,,	,,	30.00
,, S-61	0 ,,	100	,,	,,	30.00
,, S-62	0 ,,	150	,,	,,	32.00
,, S-63	0 ,,	200	,,	,,	34.00
,, S-64	0 ,,	250	,,	,,	36.00
,, S-65	0 ,,	300	,,	,,	36.00
,, S-66	0 ,,	400	,,	,,	38.00
,, S-67	0 ,,	500	,,	,,	40.00
,, S-68	0 ,,	600	,,	,,	42.00
,, S-69	0 ,,	800	,,	,,	46.00
,, S-70	0 ,,	1000	,,	,,	50.00

Diameter, 7¼ inches; depth, 3¾ inches.
Finish, enameled black, nickel trimmings.
Made for either back or front connections.
Furnished so they can be connected with either round wire or flat strip.

AMMETERS, Switchboard (Continued).

Style C, Norton Alternating Current Ammeters.

Dead Beat.

No. S-71	0 to	5	amps	each,	$30.00
,, S-72	0 ,,	10	,,	,,	30.00
,, S-73	0 ,,	15	,,	,,	30.00
,, S-74	0 ,,	25	,,	,,	30.00
,, S-75	0 ,,	50	,,	,,	30.00
,, S-76	0 ,,	75	,,	,,	30.00
,, S-77	0 ,,	100	,,	,,	30.00
,, S-78	0 ,,	150	,,	,,	32.00
,, S-79	0 ,,	200	,,	,,	34.00
,, S-80	0 ,,	250	,,	,,	36.00
,, S-81	0 ,,	300	,,	,,	36.00
,, S-82	0 ,,	400	,,	,,	38.00
,, S-83	0 ,,	500	,,	,,	40.00
,, S-84	0 ,,	600	,,	,,	42.00
,, S-85	0 ,,	800	,,	,,	46.00
,, S-86	0 ,,	1000	,,	,,	50.00

Unless specified, instruments will be furnished for 7,200 alternation circuits.

Diameter, 7¼ inches; depth, 3¾ inches.

Made for either back or front connections.

Finish, enameled black, nickel trimmings.

Furnished so they can be connected with either round wire or flat strip.



Style D.

Style D, Norton Direct Current Ammeters.

Dead Beat.

No. S- 87	0 to	10	amps	each,	$40.00
,, S- 88	0 ,,	15	,,	,,	40.00
,, S- 89	0 ,,	25	,,	,,	40.00
,, S- 90	0 ,,	50	,,	,,	40.00
,, S- 91	0 ,,	75	,,	,,	40.00
,, S- 92	0 ,,	100	,,	,,	40.00
,, S- 93	0 ,,	150	,,	,,	42.00
,, S- 94	0 ,,	200	,,	,,	44.00
,, S- 95	0 ,,	250	,,	,,	46.00
,, S- 96	0 ,,	300	,,	,,	46.00
,, S- 97	0 ,,	400	,,	,,	48.00
,, S- 98	0 ,,	500	,,	,,	50.00
,, S- 99	0 ,,	600	,,	,,	52.00
,, S-200	0 ,,	800	,,	,,	56.00
,, S-201	0 ,,	1000	,,	,,	60.00
,, S-202	0 ,,	1200	,,	,,	66.00
,, S-203	0 ,,	1500	,,	,,	72.00
,, S-204	0 ,,	1800	,,	,,	78.00
,, S-205	0 ,,	2000	,,	,,	84.00

Diameter, 9⅝ inches; depth, 4⅜ inches.

Made for either back or front connections.

Finish, enameled black, nickel trimmings.

Furnished so they can be connected with either round wire or flat strip.

Style D, Norton Alternating Current Ammeters.

Dead Beat.

No. S-206	0 to	10	amps	each,	$40.00
,, S-207	0 ,,	15	,,	,,	40.00
,, S-208	0 ,,	25	,,	,,	40.00
,, S-209	0 ,,	50	,,	,,	40.00
,, S-210	0 ,,	75	,,	,,	40.00
,, S-211	0 ,,	100	,,	,,	40.00
,, S-212	0 ,,	150	,,	,,	42.00
,, S-213	0 ,,	200	,,	,,	44.00
,, S-214	0 ,,	250	,,	,,	46.00
,, S-215	0 ,,	300	,,	,,	46.00

AMMETERS, Switchboard.

Style D, Norton Alternating Current Ammeters (Continued).

No. S-216	0 to	400	amps.	each	$48.00
„ S-217	0 „	500	„	„	50.00
„ S-218	0 „	600	„	„	52.00
„ S-219	0 „	800	„	„	56.00
„ S-220	0 „	1000	„	„	60.00

Unless specified, instruments will be furnished [illegible] alternation circuits.

[illegible] depth



Weston Illum[illegible] me[illegible]

AMMETERS, Switchboard (Continued).

Weston Round Pattern Station Ammeters, Direct Current, Model 57 (Old Model F).

Made in three patterns: regular, for front of board connection; back connection, in which binding posts are carried through to the back of switchboard; and flush type.

These instruments are dead beat and remarkably accurate, the iron dust-proof case affords protection against external magnetic influences.

Up to 75 amperes they are self-contained; larger sizes have separate shunts.

Range.	Scale Divs.	Price.
1 amps.	$\frac{1}{100}$ amps.,	$25.00
5 ,,	$\frac{1}{20}$,,	25.00
10 ,,	$\frac{1}{10}$,,	25.00
15 ,,	$\frac{1}{10}$,,	25.00
25 ,,	$\frac{1}{5}$,,	25.00
50 ,,	$\frac{1}{2}$,,	25.50
75 ,,	$\frac{1}{2}$,,	26.00
00 ,,	1 ,,	26.50
0 ,,	1 ,,	27.00
0 ,,	2 ,,	28.00
,,	2 ,,	28.25
,,	2 ,,	28.25
,,	5 ,,	28.50
,,	5 ,,	29.50
,,	5 ,,	30.50
,	5 ,,	31.50
	10 ,,	32.50
	10 ,,	33.50
	10 ,,	39.25
	20 ,,	43.75
	20 ,,	45.25

finish (dead-black
For No. 3 finish
Any of the instru-
e furnished with
pe cases, when

Ammeters,
Model K).

meters have
the demand
s for use on
connection
ower, or for
rvice where
quirements.
Furnished
flush type

	Net Price.
ps.	$15.00
	15.00
	15.00
	15.50
	15.50
	15.75
	15.75
	16.00
	16.50
	16.50
	17.00

e prices if

ish (dead-
For No. 3

r self-con-

AMMETERS, Switchboard (Continued).

Whitney R. R. Type Switchboard Ammeters, Direct Current.

These instruments operate on the d'Arsonval principle of a coil of wire rotating in the field of a permanent magnet. Diameter of case, 9⅜ inches. Average weight, 13 pounds.

In instruments under 100 amperes capacity the whole current must be passed through the meter. For larger sizes separate shunts are furnished, the same being included at the prices given.



R. R. Type (D. C.) Ammeter.

No. 1525	Scale	0 to	10	amps.	in	tenths	$23.00
,, 1527	,,	0 ,,	25	,,	,,	fifths	24.00
,, 1529	,,	0 ,,	50	,,	,,	halves	24.00
,, 1530	,,	0 ,,	75	,,	,,	units	24.50
,, 1531	,,	0 ,,	100	,,	,,	units	25.00
,, 1535	,,	0 ,,	200	,,	,,	two's	26.00
,, 1537	,,	0 ,,	300	,,	,,	2.5's	28.00
,, 1539	,,	0 ,,	400	,,	,,	fives	29.00
,, 1541	,,	0 ,,	500	,,	,,	fives	29.00
,, 1545	,,	0 ,,	750	,,	,,	tens	31.50
,, 1547	,,	0 ,,	1000	,,	,,	tens	32.50
,, 1555	,,	0 ,,	2000	,,	,,	20's	40.00
,, 1557	,,	0 ,,	3000	,,	,,	25's	43.00

The above prices are for the standard finish (black with nickel trimmings). For all copper or nickel plated add $2.00.

Whitney I. P. Type Switchboard Ammeters, Direct Current.

In instruments under 100 amperes capacity the shunts are self-contained and the whole current must be passed through the meter. In capacities of 100 amperes and over the shunts are separate. Diameter of case, 7½ inches. Average weight, 7 pounds.



I. P. Type (D. C.) Ammeter.

No. 1825	Range	0 to	10	amps.	in	tenths	$15.50
,, 1827	,,	0 ,,	25	,,	,,	fifths	16.00
,, 1829	,,	0 ,,	50	,,	,,	halves	16.50
,, 1830	,,	0 ,,	75	,,	,,	units	17.00
,, 1831	,,	0 ,,	100	,,	,,	units	17.50
,, 1835	,,	0 ,,	200	,,	,,	two's	18.00
,, 1837	,,	0 ,,	300	,,	,,	2.5's	18.50
,, 1839	,,	0 ,,	400	,,	,,	fives	19.50
,, 1841	,,	0 ,,	500	,,	,,	fives	21.00

Center Zero Instruments.

The above instruments will be supplied with the zero in the center of the scale if desired, without extra charge.

The above prices are for the standard finish (black with nickel trimmings). For all nickel or copper plated add $2.00 to list price.

Whitney R. R. Type Switchboard Ammeters, Alternating Current.

These instruments operate on the same hot wire principle as the portable ammeters described above. Diameter of case, 9⅜ inches. Average weight, 13 pounds.

Prices include shunts, which are separate from instruments in each case.



R. R. Type (A. C.) Ammeter.

No. 6101	Range	5 to	50	amps.	.....	$24.00
,, 6103	,,	10 ,,	100	,,	.....	25.00
,, 6107	,,	20 ,,	200	,,	.....	26.00
,, 6109	,,	30 ,,	300	,,	.....	28.00
,, 6111	,,	40 ,,	400	,,	.....	29.00
,, 6113	,,	50 ,,	500	,,	.....	30.00
,, 6117	,,	75 ,,	750	,,	.....	32.50
,, 6119	,,	100 ,,	1000	,,	.....	35.00

Higher ranges to order.

Above prices are for standard finish of nickel and black. For all copper or nickel plated add $2.00.

AMMETERS, Switchboard (Continued).

Whitney I. P. Type Switchboard Ammeters, Alternating Current.



I. P. Type Ammeter.

The movements are similar to those in the other hot wire instruments but the aluminum disk and drag magnet for additional damping purposes are omitted.

No. 7111	Range	2	to	10	amps.	$16.00
,, 7100	,,	3	,,	25	,,	16.00
,, 7101	,,	5	,,	50	,,	16.50
,, 7102	,,	10	,,	75	,,	17.00
,, 7103	,,	10	,,	100	,,	17.50
,, 7107	,,	20	,,	200	,,	18.00
,, 7109	,,	30	,,	300	,,	18.50

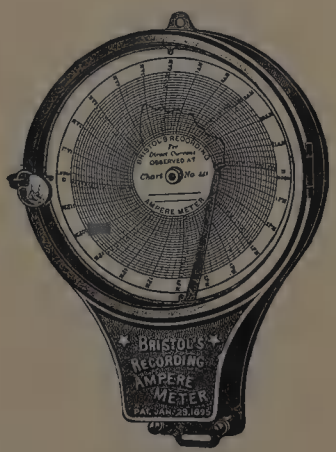
Other ranges to order.

The above prices are for standard finish (black with nickel trimmings). For all nickel or copper plated add $2.00 to list per instrument.

AMMETERS, Recording, Direct Current.

Bristol's (8-in. Chart).

Prices include, with each ampere meter, padlock and key, one hundred charts and a bottle of special recording instrument ink.



Bristol Recording Ammeter.

No.	Chart No.	Graduations in Amperes.	Working Range in Amperes.	Total Scale in Amperes.	One Revolution of Chart.	List Price.
4047	458	$\frac{1}{20}$ above	$\frac{1}{4}$ to $1\frac{1}{4}$	0 to 2	24 hours	$60.00
4000	431	$\frac{1}{5}$,, 2	1 ,, 6	0 ,, 7	24 ,,	60.00
4001	412	$\frac{1}{5}$,, 3	2 ,, 9	0 ,, 10	24 ,,	60.00
4033	414	$\frac{1}{5}$,, 3	2 ,, 9	0 ,, 10	12 ,,	60.00
4002	444	$\frac{1}{5}$,, 3	2 ,, 9	0 ,, 10	6 ,,	60.00
4036	452	$\frac{1}{5}$,, 3	2 ,, 9	0 ,, 10	1 hour	60.00
4003	445	$\frac{1}{5}$,, 3	2 ,, 9	0 ,, 10	15 minutes	60.00
4004	441	$\frac{1}{2}$,, 3	2 ,, 13	0 ,, 15	24 hours	60.00
4029	446	$\frac{1}{2}$,, 6	3 ,, 18	0 ,, 20	24 ,,	60.00
4041	434	1 ,, 5	5 ,, 22	0 ,, 25	7 days	60.00
4042	439	1 ,, 5	5 ,, 22	0 ,, 25	24 hours	60.00
4005	451	1 ,, 5	5 ,, 27	0 ,, 30	24 ,,	60.00
4045	453	1 ,, 10	10 ,, 45	0 ,, 50	24 ,,	60.00
4038	438	2 ,, 10	10 ,, 55	0 ,, 60	24 ,,	60.00
4007	473	2 ,, 10	10 ,, 55	0 ,, 60	6 ,,	60.00
4043	417	2 ,, 30	20 ,, 90	0 ,, 100	24 ,,	70.00
4008	463	5 ,, 25	25 ,, 110	0 ,, 125	24 ,,	70.00
4009	462	5 ,, 25	25 ,, 110	0 ,, 125	6 ,,	70.00
4059	413	5 ,, 25	25 ,, 135	0 ,, 150	24 ,,	70.00
4010	482	5 ,, 25	25 ,, 135	0 ,, 150	15 minutes	70.00
4048	490	5 ,, 25	25 ,, 165	0 ,, 180	7 days	70.00
4011	471	5 ,, 30	30 ,, 165	0 ,, 180	24 hours	70.00
4012	484	5 ,, 25	25 ,, 165	0 ,, 180	6 ,,	70.00
4040	437	10 ,, 50	30 ,, 180	0 ,, 200	24 ,,	70.00
4037	488	10 ,, 50	50 ,, 270	0 ,, 300	7 days	80.00
4044	435	10 ,, 50	50 ,, 270	0 ,, 300	24 hours	80.00
4015	476	10 ,, 50	50 ,, 270	0 ,, 300	12 ,,	80.00
4016	478	10 ,, 50	50 ,, 270	0 ,, 300	6 ,,	80.00
4017	477	10 ,, 50	50 ,, 270	0 ,, 300	1 hour	80.00
4018	474	10 ,, 50	50 ,, 270	0 ,, 300	15 minutes	80.00
4046	457	10 ,, 100	50 ,, 400	0 ,, 450	7 days	80.00
4019	483	10 ,, 150	50 ,, 400	0 ,, 450	24 hours	80.00
4051	465	10 ,, 150	50 ,, 400	0 ,, 450	1 hour	80.00
4020	443	20 ,, 100	100 ,, 550	0 ,, 600	24 hours	80.00
4032	447	20 ,, 100	100 ,, 550	0 ,, 600	12 ,,	80.00
4049	459	20 ,, 200	100 ,, 700	0 ,, 800	31 days	100.00
4053	469	20 ,, 200	100 ,, 700	0 ,, 800	24 hours	80.00
4021	485	25 ,, 200	100 ,, 700	0 ,, 800	12 ,,	80.00
4054	470	20 ,, 200	100 ,, 700	0 ,, 800	1 hour	80.00
4057	410	20 ,, 300	150 ,, 1100	0 ,, 1200	7 days	80.00
4052	468	20 ,, 300	150 ,, 1100	0 ,, 1200	24 hours	80.00
4031	492	20 ,, 300	200 ,, 1100	0 ,, 1200	12 ,,	80.00
4023	495	50 ,, 200	200 ,, 1100	0 ,, 1200	1 hour	80.00
4024	497	50 ,, 400	200 ,, 1500	0 ,, 1600	24 hours	90.00
4025	496	50 ,, 400	200 ,, 1500	0 ,, 1600	12 ,,	90.00
4055	416	100 ,, 500	250 ,, 2200	0 ,, 2500	24 ,,	90.00
4056	415	100 ,, 500	500 ,, 3200	0 ,, 3500	24 ,,	100.00
4030	499	100 ,, 1000	1000 ,, 4500	0 ,, 5000	24 ,,	150.00
4035	450	100 ,, 1000	1000 ,, 4500	0 ,, 5000	12 ,,	150.00
4058	411	100 ,, 1000	1000 ,, 5000	0 ,, 5500	24 ,,	150.00
4039	489	100 ,, 1000	1000 ,, 5000	0 ,, 5500	12 ,,	150.00
4050	466	100 ,, 1000	1000 ,, 5000	0 ,, 5500	15 minutes	150.00
4034	449	$\frac{1}{10}$	8 ,, $10\frac{1}{2}$	8 ,, 11	24 hours	65.00
4028	479	10	400 ,, 675	400 ,, 700	24 ,,	90.00

AMMETERS, Recording, Alternating Current.

Bristol's (8-in. Chart).

Alternating current ampere meters in this list are designed to be used on circuits where the voltage does not exceed 800 volts.

Series transformers are necessary with recording ampere meters for alternating current where voltage exceeds 800 volts or current capacity is above 300 amperes.

Prices include, with each instrument, padlock and key, one hundred charts and a bottle of special recording instrument ink.

No.	Chart No.	Graduations in Amperes.	Working Range.	Total Scale.	One Revolution of Chart.	List Price.
4247	458	$\frac{1}{20}$ above $\frac{1}{4}$	$\frac{1}{4}$ to $1\frac{3}{4}$ amps.	0 to 2 amps.	24 hours	$60.00
4200	412	$\frac{1}{5}$ " 3	2 " 9 "	0 " 10 "	24 "	60.00
4201	414	$\frac{1}{5}$ " 3	2 " 9 "	0 " 10 "	12 "	60.00
4217	444	$\frac{1}{5}$ " 3	2 " 9 "	0 " 10 "	6 "	60.00
4236	452	$\frac{1}{5}$ " 3	2 " 9 "	0 " 10 "	1 hour	60.00
4218	445	$\frac{1}{5}$ " 3	2 " 9 "	0 " 10 "	15 minutes	60.00
4215	446	$\frac{1}{2}$ " 6	3 " 18 "	0 " 20 "	24 hours	60.00
4203	434	1 " 5	5 " 22 "	0 " 25 "	7 days	60.00
4202	439	1 " 5	5 " 22 "	0 " 25 "	24 hours	60.00
4245	453	1 " 10	10 " 45 "	0 " 50 "	24 "	60.00
4205	438	2 " 10	10 " 55 "	0 " 60 "	24 "	60.00
4222	473	2 " 10	10 " 55 "	0 " 60 "	6 "	60.00
4206	417	2 " 30	20 " 90 "	0 " 100 "	24 "	70.00
4223	463	5 " 25	25 " 110 "	0 " 125 "	24 "	70.00
4224	462	5 " 25	25 " 110 "	0 " 125 "	6 "	70.00
4259	413	5 " 25	25 " 135 "	0 " 150 "	24 "	70.00
4225	482	5 " 25	25 " 135 "	0 " 150 "	15 minutes	70.00
4209	437	10 " 50	30 " 180 "	0 " 200 "	24 hours	70.00
4237	488	10 " 50	50 " 270 "	0 " 300 "	7 days	80.00
4210	435	10 " 50	50 " 270 "	0 " 300 "	24 hours	80.00

For High Ranges and Voltages.

To be used with Series Transformers.

These instruments are wound for maximum current capacity of 5 amperes.

No.	Chart No.	Graduations in Amperes.	Working Range.	Total Scale.	One Revolution of Chart.	Price without Transformer.*
4600	412	$\frac{1}{5}$ above 3	2 to 9 amps.	0 to 10 amps.	24 hours	$60.00
4601	414	$\frac{1}{5}$ " 3	2 " 9 "	0 " 10 "	12 "	60.00
4617	444	$\frac{1}{5}$ " 3	2 " 9 "	0 " 10 "	6 "	60.00
4636	452	$\frac{1}{5}$ " 3	2 " 9 "	0 " 10 "	1 hour	60.00
4618	445	$\frac{1}{5}$ " 3	2 " 9 "	0 " 10 "	15 minutes	60.00
4615	446	$\frac{1}{2}$ " 6	3 " 18 "	0 " 20 "	24 hours	60.00
4603	434	1 " 5	5 " 22 "	0 " 25 "	7 days	60.00
4602	439	1 " 5	5 " 22 "	0 " 25 "	24 hours	60.00
4645	453	1 " 10	10 " 45 "	0 " 50 "	24 "	60.00
4606	417	2 " 30	20 " 90 "	0 " 100 "	24 "	60.00
4623	463	5 " 25	25 " 110 "	0 " 125 "	24 "	60.00
4624	462	5 " 25	25 " 110 "	0 " 125 "	6 "	60.00
4659	413	5 " 25	30 " 135 "	0 " 150 "	24 "	60.00
4625	482	5 " 25	25 " 135 "	0 " 150 "	15 minutes	60.00
4637	488	10 " 50	50 " 270 "	0 " 300 "	7 days	60.00
4610	435	10 " 50	50 " 270 "	0 " 300 "	24 hours	60.00
4620	443	20 " 100	100 " 550 "	0 " 600 "	24 "	60.00
4632	447	20 " 100	100 " 550 "	0 " 600 "	12 "	60.00
4653	469	20 " 200	100 " 700 "	0 " 800 "	24 "	60.00
4621	485	25 " 200	100 " 700 "	0 " 800 "	12 "	60.00
4654	470	20 " 200	100 " 750 "	0 " 800 "	1 hour	60.00
4604	433	50 " 200	200 " 900 "	0 " 1000 "	24 hours	60.00
4605	442	100 " 500	500 " 1800 "	0 " 2000 "	24 "	60.00
4607	428	200 " 800	800 " 3600 "	0 " 4000 "	24 "	60.00

* Price of series transformer on application.

For price of extras, see "Watt Meters."

ANCHORS, Guy.



Stombaugh Guy Anchors.



Showing Square Tube, Wrench and Adjustment.



Harpoon Guy Anchor.

Stombaugh Guy Anchors, Type B.

The Type B anchors have the following improvements over the old style:

Square shank on head of anchor.

Same size shank on 5- and 6-inch sizes so that one wrench will fit either.

A removable, threaded, drop forged eye (formerly welded).

A full unwelded rod.

Wrench pipe made of seamless, steel, square tubing.

Wrench fitted with malleable iron key.

Wrench handles adjustable and removable

NOTE.—If old style anchors are desired, order must so state; otherwise Type B will be sent.

No.	Diam. In.	Size Rod.	Wt. Lbs.	*Holding Power. Lbs.	Price per 100.	†Galv'g per Anchor.
		Light Strains.				
500	5	No rod	2½	12,500	$70.00	None
		Ordinary Strains.				
600	6	No rod	4½	15,000	125.00	,,
		Light Strains.				
502R	5	½ in. r'd	6½	12,500	115.00	$ .23
		Ordinary Strains.				
603R	6	⅝ in. r'd	10	15,000	225.00	.35
		Heavy Strains.				
704R	7	¾ in. r'd	15	17,500	450.00	.52
		Heavy Strains.			Each.	
800	8	1⅛ in. sq.	38	20,000	7.50	1.33
		Corner Strains.				
1000	10	1¼ in. sq.	50	25,000	11.25	1.75
		Deadening, etc.				
1200	12	1½ in. sq.	80	30,000	15.00	2.80

	Weight. Lbs.	Price Each.
No. 567. Wrench for 5- and 6-in. anchors	18	$5.10
No. 707. Wrench for 7-in. anchors	24	6.50

* Holding power when bored 5 ft. into the ground.
† Galvanizing net extra. Rodless Anchors are not galvanized. Rods all six feet long.

The Crouse-Hinds Harpoon Guy Anchor.

Requires no expert to install.

The groundman drives the anchor while the lineman ties the guy wire to the pole. Therefore the installation costs nothing.

Only 10 to 40 blows with sledge required to install it.

It can be driven in any kind of wet, dry or frozen soil.

It can be installed in many places where it is not possible to dig up the ground to bury a dead man or slug.

To install the anchor, make a hole 2½ feet deep by 4 inches diameter, with a digging bar, at the same angle the guy will run, then drive the anchor full length with a sledge.

The anchor should then be pulled out (about 6 inches) until the wings spread.

It is now ready for the guy.

The anchor is made of forged steel and weighs 22 pounds. The rod is 5 feet long and 1 inch square. The wings closed measure 4 inches, spread 13 inches.

No. S-274. Harpoon Guy Anchor.....each, $3.30

ANCHOR, Rods (see R).

ANNUNCIATORS.

Elevator Design.



Elevator.

Standard design, drops in single row, large sizes in two rows.
Stock finish, golden oak. Other finishes to order, special.
Arrow indicators turn full quarter circle, will not shake down.
No extra charge for special lettering.
Your name on face plate when so ordered.
" Grip-fast " connector clips provided for all incoming lines.
Annunciators for cars inclosed in metal lattice work, supplied with solid wood backs at 50 cents additional, net.

No.	Arrangement. Drops.	Across.	Down.	Extreme Measurements. Width.	Height.	Price.
S-275	3	1	3	$6\frac{1}{2}$ in.	x $15\frac{1}{4}$ in.	$7.00
S-276	4	1	4	$6\frac{1}{2}$,,	x $19\frac{1}{4}$,,	7.50
S-277	5	1	5	$6\frac{1}{2}$,,	x $19\frac{1}{4}$,,	9.00
S-278	6	1	6	$6\frac{1}{2}$,,	x $24\frac{1}{4}$,,	10.25
S-279	7	1	7	$6\frac{1}{2}$,,	x $24\frac{1}{4}$,,	11.50
S-280	8	1	8	$6\frac{1}{2}$,,	x $28\frac{3}{4}$,,	12.50
S-281	9	1	9	$6\frac{1}{2}$,,	x $28\frac{3}{4}$,,	14.00
S-282	10	1	10	$6\frac{1}{2}$,,	x $35\frac{1}{4}$,,	15.00

Gem Design.



Gem.

Same general specifications as above. Cases of neat design and good finish, although not as costly as other styles.

No.	Arrangement. Drops.	Across.	Down.	Extreme Measurements. Width.	Height.	Price.
S-283	3	2	2	$6\frac{1}{2}$ in.	x 12 in.	$5.75
S-284	4	2	2	$6\frac{1}{2}$,,	x 12 ,,	6.25
S-285	6	2	3	$6\frac{1}{2}$,,	x $14\frac{1}{4}$,,	8.00
S-286	8	2	4	$6\frac{1}{2}$,,	x $16\frac{1}{2}$,,	9.75
S-287	10	2	5	$6\frac{1}{2}$,,	x $18\frac{3}{4}$,,	11.50
S-288	12	4	3	10 ,,	x $14\frac{1}{4}$,,	13.75
S-289	16	4	4	10 ,,	x $16\frac{1}{2}$,,	18.50
S-290	20	4	5	10 ,,	x $18\frac{3}{4}$,,	23.00

Larger Sizes to Order.

Model Design.



Model.

Stock cabinet finish, oak. Other finishes to order, special.
Arrows turn full quarter circle and will not shake down.
No extra charge for special lettering.
Your name on face plate when so ordered.
" Grip-fast " connector terminal clips provided for all incoming lines.

No.	Arrangement. Drops.	Across.	Down.	Extreme Measurements. Width.	Height.	Price.
S-291	3	2	1	$8\frac{3}{4}$ in.	x 13 in.	$6.90
S-292	4	2	2	$8\frac{3}{4}$,,	x 13 ,,	7.50
S-293	6	2	3	$8\frac{3}{4}$,,	x $15\frac{1}{4}$,,	10.25
S-294	8	2	4	$8\frac{3}{4}$,,	x $17\frac{1}{2}$,,	12.50
S-295	10	2	5	$8\frac{3}{4}$,,	x $19\frac{3}{4}$,,	15.00
S-296	12	3	4	$12\frac{1}{4}$,,	x $15\frac{1}{4}$,,	17.25
S-297	16	4	4	$12\frac{1}{4}$,,	x $17\frac{1}{2}$,,	21.75
S-298	20	4	5	$12\frac{1}{4}$,,	x $19\frac{3}{4}$,,	26 50
S-299	25	5	5	15 ,,	x $23\frac{3}{4}$,,	30.00
S-300	30	6	5	$16\frac{3}{4}$,,	x $23\frac{3}{4}$,,	36.00
S-301	36	6	6	16 ,,	x 26 ,,	43.50
S-302	42	7	6	$18\frac{1}{2}$,,	x 26 ,,	50.00
S-303	49	7	7	$18\frac{1}{2}$,,	x $28\frac{1}{4}$,,	59.50
S-304	56	8	7	$20\frac{1}{4}$,,	x $28\frac{1}{4}$,,	67.50

Larger Sizes to Order.

ANNUNCIATORS (Continued).



Gothic.

Gothic Design.

Cabinets, stock finish, oak. Other finishes to order, special.

Arrows turn full quarter circle and will not shake down.

No extra charge for special lettering.

Your name on face plate when so ordered.

" Grip-fast " connector terminal clips provided for all incoming lines.

No...	Arrangement. Drops.	Across.	Down.	Extreme Measurements. Width.	Height.	Price.
S-305	20	5	4	18½ in.	x 30¾ in.	$34.50
S-306	25	5	5	18½ ,,	x 30¾ ,,	41.00
S-307	30	6	5	20¼ ,,	x 30¾ ,,	48.00
S-308	36	6	6	20¼ ,,	x 33 ,,	53.00
S-309	42	7	6	22 ,,	x 33 ,,	57.50
S-310	49	7	7	22 ,,	x 35¼ ,,	67.00
S-311	56	8	7	23¾ ,,	x 35¼ ,,	76.00
S-312	64	8	8	23¾ ,,	x 37½ ,,	87.50
S-313	72	9	8	25½ ,,	x 37½ ,,	96.00
S-314	81	9	9	25½ ,,	x 39¾ ,,	108.00
S-315	100	10	10	27¼ ,,	x 42 ,,	134.00

Larger Sizes to Order.



Doric.

Doric Design.

In our highest grade cabinets we have endeavored to bring out designs that stand for architectural character. All are hand rubbed and highly finished in Golden Oak, unless otherwise ordered.

These annunciators are of perfect mechanical construction, combined with excellence in detail and finish.

No extra charge for special lettering.

Your name on face plate when so ordered.

" Grip-fast " terminal connectors provided for all incoming lines.

No.	Arrangement. Drops.	Across.	Down.	Extreme Measurements. Width.	Height.	Price.
S-316	25	5	5	25½ in.	x 29¾ in.	$51.00
S-317	30	6	5	27¼ ,,	x 29¾ ,,	58.00
S-318	36	6	6	27¼ ,,	x 32 ,,	63.00
S-319	42	7	6	29 ,,	x 32 ,,	67.50
S-320	49	7	7	29 ,,	x 34¼ ,,	77.00
S-321	56	8	7	30¾ ,,	x 34¼ ,,	91.00
S-322	64	8	8	30¾ ,,	x 36½ ,,	102.50
S-323	72	9	8	32½ ,,	x 36½ ,,	111.00
S-324	81	9	9	32½ ,,	x 38¾ ,,	128.00
S-325	100	10	10	34¼ ,,	x 41 ,,	159.00

Special Sizes to Order.



Ionic.

Ionic Design.

The most beautiful Annunciator Cabinet made. Both column and capital are hand carved, the entablature and base being of correct architectural proportions.

All are hand rubbed and highly polished.

Finished in dark oak unless otherwise ordered.

No extra charge for special lettering.

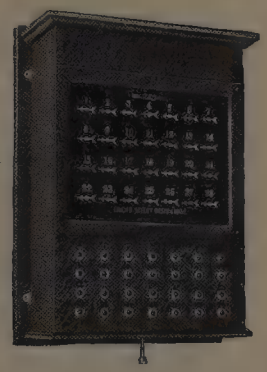
Your name on face plate when so ordered.

" Grip-fast " connectors provided for all incoming lines.

No.	Arrangement Drops.	Across.	Down.	Extreme Measurements. Width.	Height.	Price.
S-326	25	5	5	25½ in.	x 29¾ in.	$61.00
S-327	30	6	5	27¼ ,,	x 29¾ ,,	68.00
S-328	36	6	6	27¼ ,,	x 32 ,,	73.00
S-329	42	7	6	29 ,,	x 32 ,,	77.50
S-330	49	7	7	29 ,,	x 34¼ ,,	97.00
S-331	56	8	7	30¾ ,,	x 34¼ ,,	106.00
S-332	64	8	8	30¾ ,,	x 36½ ,,	117.50
S-333	72	9	8	32½ ,,	x 36½ ,,	136.00
S-334	81	9	9	32½ ,,	x 38¾ ,,	148.00
S-335	100	10	10	34¼ ,,	x 41 ,,	184.00

Special Sizes to Order.

ANNUNCIATORS (Continued).



Model, Return Call Annunciator.

Return Call Annunciators.

Return call annunciators have an extension of the case in which are placed push buttons corresponding to the drops. On receipt of a call from a guest of the hotel the office clerk presses the button of the same number, thereby giving a return signal to the guest in his room to show that the call will be answered.

Model Style.	Arrangement. Drops.	Across.	Down.	Extreme Measurement. Width.	Height	Price.
No. H-336	6	3	2	10½ in.	x 16¾ in.	$17.25
,, H-337	9	3	3	10½ ,,	x 20¼ ,,	20.50
,, H-338	12	4	3	12¼ ,,	x 20¼ ,,	24.25
,, H-339	16	4	4	12¼ ,,	x 22½ ,,	30.00
,, H-340	20	4	5	12¼ ,,	x 26 ,,	34.50
,, H-341	24	6	4	16¾ ,,	x 30¼ ,,	42.50
,, H-342	32	8	4	20¼ ,,	x 30¼ ,,	53.00
,, H-343	45	9	5	22 ,,	x 32½ ,,	74.00
,, H-344	54	9	6	22 ,,	x 36 ,,	90.00
,, H-345	70	10	7	23¾ ,,	x 38¼ ,,	115.00
,, H-346	88	11	8	25½ ,,	x 41¾ ,,	145.00
,, H-347	104	13	8	29 ,,	x 41¾ ,,	175.00
Gothic Style.						
No. H-350	24	6	4	20¼ in.	x 39¼ in.	$60.00
,, H-351	32	8	4	23¾ ,,	x 39¼ ,,	72.00
,, H-352	45	9	5	25½ ,,	x 41 ,,	85.00
,, H-353	54	9	6	25½ ,,	x 45 ,,	100.00
,, H-354	70	10	7	27¼ ,,	x 47¼ ,,	130.00
,, H-355	88	11	8	29 ,,	x 50¾ ,,	160.00
,, H-356	104	13	8	32½ ,,	x 50¾ ,,	190.00
Doric Style.						
No. H-357	24	6	4	27¾ in.	x 38¼ in.	$67.00
,, H-358	32	8	4	31¼ ,,	x 38¼ ,,	81.00
,, H-359	45	9	5	33 ,,	x 40 ,,	106.00
,, H-360	54	9	6	33 ,,	x 44 ,,	127.00
,, H-361	70	10	7	34¾ ,,	x 46¼ ,,	162.00
,, H-362	88	11	8	36 ,,	x 49¾ ,,	190.00
,, H-363	104	13	8	40 ,,	x 49¾ ,,	220.00
Ionic Style.						
No. H-365	24	6	4	27¾ in.	x 38¼ in.	$77.00
,, H-366	32	8	4	31¼ ,,	x 38¼ ,,	95.00
,, H-367	45	9	5	33 ,,	x 40 ,,	125.00
,, H-368	54	9	6	33 ,,	x 44 ,,	140.00
,, H-369	70	10	7	34¾ ,,	x 46¼ ,,	175.00
,, H-370	88	11	8	36½ ,,	x 49¾ ,,	210.00
,, H-371	104	13	8	40 ,,	x 49¾ ,,	240.00

For intermediate sizes use next larger case and deduct from list price $1.50 per drop for the numbers left out. Fire alarm attachment extra, $20.00



Gothic, Return Call Annunciator.

Automatic Re-set and Electric Set-Back Annunciators.

Automatic Re-set Annunciators do not require the attention of servants or attendants to re-set the needles after each call is indicated and answered. The re-setting is accomplished by means of a device which operates automatically. It is, therefore, impossible for the attendant to mistake the location of a new call because two or more needles have been allowed to remain indicating.

The Electric Set-Back Annunciator is an instrument which, while it is like the Automatic, inasmuch as it is not necessary to operate the mechanical set-back to reset the drops, a press button must be pushed to accomplish this result.

Add to list prices of regular annunciators:

For 20 drops or less..... $2.00
For 21 to 56 drops..... 4.00



Ionic, Return Call Annunciator.

ANNUNCIATORS (Continued).



Pattern 26.

H.-C. Gravity Drop Annunciator, Pattern 26.

One of the most popular styles. The quality of material and the grade of workmanship are of the best. Hand reset. Drops marked numerically unless otherwise ordered. Regular finish, solid quartered oak. Customer's name on glass if desired.

No. 5-150A	3 drops		per drop,	$1.60
,, ,,	4 ,,		,,	1.30
,, ,,	5 ,,		,,	1.30
,, ,,	6 ,,		,,	1.30
,, ,,	8 ,,		,,	1.20
,, ,,	10 ,,		,,	1.20
,, ,,	12 ,,		,,	1.15
,, ,,	16 ,,		,,	1.10
,, ,,	20 ,,	and above	,,	1.05



Pattern 25.

H.-C. Gravity Drop Annunciator, Pattern 25.

A substantial, well-finished style of annunciator. Oak or walnut is used in the cases, other woods to order. Gravity drops only, with hand reset. Can also be provided with return call if desired.

No. 6-150A	3 drops		per drop,	$1.80
,, ,,	4 ,,		,,	1.50
,, ,,	5 ,,		,,	1.50
,, ,,	6 ,,		,,	1.40
,, ,,	8 ,,		,,	1.40
,, ,,	10 ,,		,,	1.30
,, ,,	12 ,,		,,	1.30
,, ,,	16 ,,		,,	1.20
,, ,,	20 ,,	and above	,,	1.20

With Return Call Board.

No. 7-150A	14 to 36 drops	per drop,	$2.10
,, ,,	40 to 100 ,,	,,	2.00



Pattern 3A.

H.-C. Burglar Alarm Annunciator, Pattern 3A.

H.-C. Burglar Alarm Annunciators consist of standard gravity annunciator drops operating in connection with a burglar alarm circuit, any part of the building being connected at will by means of a special switch attachment.

Finished in oak or walnut and equipped with silent test, battery test and constant ringing attachments.

Can also be furnished with clock and automatic attachments if desired.

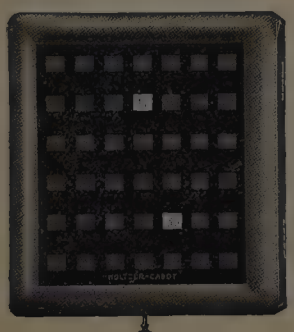
No. 23-150A	4 indications complete,		price,	$18.00
,, ,,	6 ,,		,,	22.00
,, ,,	8 ,,		,,	26.00
,, ,,	10 ,,		,,	30.00
,, ,,	12 ,,		,,	34.00
,, ,,	14 ,,		,,	38.00



Pattern O.



"Up and Down" Type.



Marine Annunciator.

ANNUNCIATORS (Continued).

H.-C. Elevator Annunciator, Pattern O.

This pattern can be arranged with the drops in a single or double row; above eight drops it will be made with a double row unless otherwise specified. The finish can be made to match surroundings or will be finished in oak, walnut or ebony. The Hub Dome Bell is used, requiring no opening in the top of the case, making it dust and moisture proof. Either gravity or French drops are used, as ordered.

No. 3-150A.	3 drops	per drop,	$1.90
,, ,,	4 ,,	,,	1.60
,, ,,	5 ,,	,,	1.60
,, ,,	6 ,,	,,	1.50
,, ,,	8 ,,	,,	1.50
,, ,,	10 ,,	,,	1.40
,, ,,	12 ,,	,,	1.40
,, ,,	16 ,,	,,	1.30
,, ,,	20 ,,	,,	1.30

H.-C. Elevator Annunciator.
"Up and Down" Type.

This style of instrument is for use in elevators that work together and whose annunciators are required to work in synchronism.

Indications are made simultaneously in all the annunciators connected together, as is also the resetting of the drops, enabling the several elevators to be operated without confliction and with much greater efficiency.

The drops are of the electrical reset type, requiring only a small amount of battery.

Annunciators of this type are not generally made for less than 10 drops but can be furnished with any number required.

No. 3-150A.	From 4 to 10 drops	per drop, $1.80
	Above 10 drops	,, 1.60

Marine Annunciator.

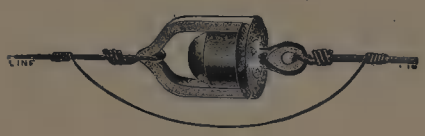
The case of the Marine Annunciator is of mahogany, highly polished, and made in three parts. The body, carrying the metal plate on which the drops are mounted, is hinged to the backboard; while the frame holding the glass is fastened to the body by screws.

The drops are not affected by shocks or jars of any kind, as the armature supporting the shutter is balanced by two spiral springs which hold it in perfect equilibrium.

The drops are mounted on a heavy metal plate which is insulated and hinged inside the case of the water-tight case, and secured by screws to the hinged body of the non-water-tight case, thus allowing easy access to the wire connections and spring contacts in either style.

A bell or buzzer, water-tight or otherwise, as required, is furnished to be connected in circuit outside the case of the annunciator.

Prices on application.



Anti-Hum.



Anti-Rattler.

ANTI-HUMS.

Anti-Hums.

A soft rubber bushing between two metal strain parts for preventing the humming of telegraph and telephone wires when wind blows.

No. S-336. Anti-Hums.....each, $ .25

ANTI-RATTLER.

Anti-Rattler.

Consists of a bronze holder with a rubber roller and is used to prevent end doors from rattling in electric cars.

No. 1641. Anti-Rattler.....per doz., $6.00

APPARATUS, Electric Heating. (See the various headings, as "Stoves," "Irons," "Dishes," "Radiators," "Kettles," "Ovens," etc.).

ARC Bracket, Plain (see Fixtures, pole and wall).
ARC Cluster (see C).
ARC Cut-Outs (see C).
ARC Hangers (see H).
ARC Hoods (see H).
ARC Lamps (see L).
ARC Lamp Globe Nets (see N).
ARC Lamp Pulleys (see P).
ARC Poletop, Enclosed (see Hood).

ARMALAC.

No. 8 Armalac.



This is a high grade insulating compound used for the reënforcement of cotton covering of armatures and field coils, fiber, paper, cloth, mica, mica rings, etc. Being a plastic compound, it has met the requirements of the trade with perfect satisfaction. It is manufactured on a paraffine basis, and for this reason has permanent insulation qualifications.

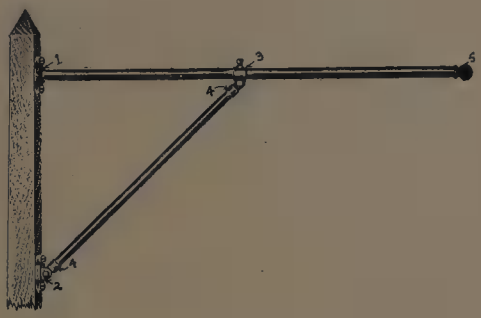
In 1-, 2-, 5-, or 10-gal. cans.....net, per gal., $1.85
In barrels..... ,, ,, 1.50

ARMATURE Bearings (see B).
ARMATURE Binding Wire (see W).
ARMATURE Coils (see C).
ARMATURE Lift (see L).
ARMATURE Pinions (see Gears).
ARMATURE Troughs (see Mica).
ARMATURE Varnish (see V).
ARMORDUCT (see Conduit).
ARMORITE (see Conduit).
ARMOUR, Trolley Wire (see Sleeves, protecting).
ARMS, see following headings:

Arms, Bracket.
,, Break (see Brackets).
,, Clamp (see Brackets).
,, Cross.
,, Cross, Cutter's.
,, Feeder.
,, Mast.
,, Telephone (see Brackets, telephone).

ARMS, Bracket.

Street Railway Bracket Arms.



Standard.

No. S-340. Standard Arm, 9 ft.....each, $3.30

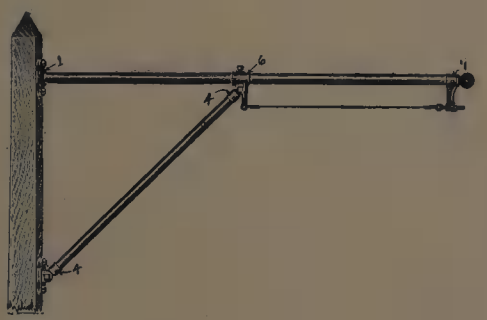
Specifications.

9 ft. pipe, 1½ in., standard size, threaded.
6 ,, ,, 1¼ ,, ,, ,, ,,
1 pole flange, threaded, No. 1.
1 ,, hinge for strut with bolt, No. 2.
1 center sleeve with bolt and set screw, No. 3.
2 end caps, threaded, No. 4.
1 end ball, black enameled wood, No. 5.
Weight complete, 46 lb.

No. S-341. Standard Flexible Arm, 9 ft,each, $3.75

Specifications.

9 ft. pipe, 1½ in., standard size, threaded.
6 ,, ,, 1¼ ,, ,, ,, ,,
1 pole flange, threaded, No. 1.
1 ,, hinge for strut with bolt, No. 2.
1 center casting with bolt and set screw, No. 6.
2 end caps, threaded, No. 4.
1 end casting, threaded, No. 7.
1-4 x ½-in. eye bolt for No. 7.
6 ft. of ¼-in. or $\frac{5}{16}$-in. galv. strand as desired.
Weight complete, 52 lb.

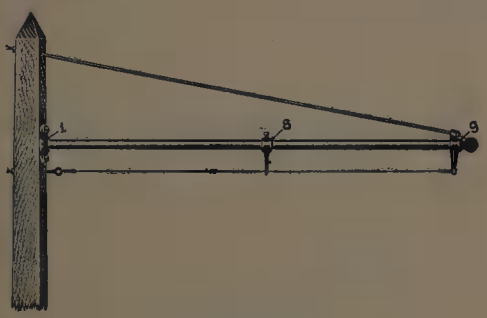


Standard Flexible.

No. S-342. Special Flexible Arm, 9 ft., each, $2.70

Specifications.

9 ft. pipe, 1½ in., standard size, threaded.
1 pole flange, threaded, No. 1.
1 center slide with set screw, No. 8.
1 end casting, threaded, No. 9.
1 steel guy rod, 10½ ft. x ½ in., with button head, nut and washer.
10 ft. of ¼-in. or $\frac{5}{16}$-in. galv. strand as desired.
Weight complete, 41 lb.

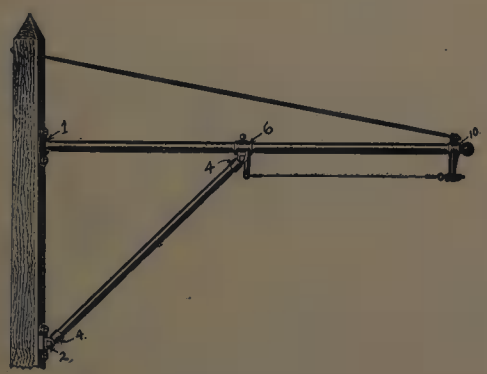


Special Flexible.

No. S-343. Combination Flexible Arm,
9 ft.....each, $4.20

Specifications.

9-ft. pipe, 1½ in., standard size, threaded.
6 ,, ,, 1¼ ,, ,, ,, ,,
1 pole flange, threaded, No. 1.
1 ,, hinge for strut with bolt, No. 2.
1 center casting with bolt and set screw, No. 6.
2 end caps, threaded, No. 4.
1 end casting, threaded, No. 10.
1-4 x ½-in. eye bolt for No. 10.
1 steel guy rod, 10½ ft. x ½ in., with button head, nut and washer.
6 ft. of ¼-in. or $\frac{5}{16}$-in. galv. strand, as desired.
Weight complete, 60 lb.



Combination Flexible.

No. S-344. Loose Fitting Flexible Arm,
9 ft.....each, $2.30

Specifications.

Similar to the " Special Flexible " except that parts are not threaded and structural pipe is used.
9-ft. structural tubing.
1 pole flange, not threaded, No. 14.
1 center slide with set screw, No. 8.
1 end casting, not threaded, No. 15.
1 steel guy rod 10½ ft. x ½ in., with button head, nut and washer.
10 ft. of ¼ or $\frac{5}{16}$ galv. strand, as desired.
Weight complete, 30 lb.

Special long lengths of any of above styles, with two guy rods, etc., furnished to order at short notice.



Four-Pin Cross Arm.



Cutter's Plain Arm.



Cutter's Grip Arm.



Cutter's Economy Arm.



Cutter's High-Voltage Cross Arm.



Cutter's Triple Insulation Arm.

ARMS, Break (see Brackets).

ARMS, Clamp (see Brackets).

ARMS, Cross.

Hard Pine Cross Arms.

Genuine long-leaf hard pine cross arms, bored for 1½-inch standard pins and either two ⅝-inch lags or one ¾-inch through bolt.

Special borings and sizes to order.

No.	Pin.	Length.	Cross Sect.	Ctr. in.	Spacings. Sides. in.	Spacings. Ends. in.	Per foot.
S-345	2	3 ft.	3¼ x 4¼ in.	28		4	$ .09
S-346	4	4 „	3¼ x 4¼ „	16	12	4	.09
S-347	4	5 „	3¼ x 4¼ „	18	17	4	.09
S-348	4	*5½„	3¼ x 4¼ „	30	14	4	.09
S-349	6	6 „	3¼ x 4¼ „	16	12	4	.09
S-350	6	*8 „	3¼ x 4¼ „	30	14	5	.09
S-351	8	8 „	3¼ x 4¼ „	16	12	4	.09
S-352	10	10 „	3¼ x 4¼ „	16	12	4	.09

*Austin Pattern.

Any of above sizes, also 3¾-inch by 4¾-inch cross-section arms, furnished to order in spruce, plain, painted or asphaltum dipped.

ARMS, Cross, Cutter's.

Cutter's Plain Arm.

Enameled wood with metal bound ends and porcelain knobs.

No. S-353. Cutter's Plain Arm....net, each, $ .15

Cutter's Grip Arm.

Consists of plain arm with U bolt for clamping the same to 1¼-inch (bore) pipe.

No. S-354. Cutter's Grip Arm....net, each, $ .20

Cutter's Economy Arm.

A common-sense cross arm for use where the insulation is not important. Made of enameled wood, with metal bound ends and sister-hook.

No. S-355. Cutter's Economy Arm, net, each, $ .25

Cutter's High Voltage Cross Arm.

Combines a high voltage insulator with a well built, insulating, spreader arm, a fine insulating arm for use over arc lamps. Wood arm is heavily coated with baked enamel which keeps it dry and highly insulating. Ends are bound with iron ferrules.

No. S-356. Cutter's High Voltage Cross Arm.....net, each, $ .70

Cutter's Triple Insulation Arm.

Has a high voltage insulator above the enameled wood arm, thus giving a triple insulation between the line wire and the supporting ring. Ends of arm are bound with iron ferrules to prevent splitting. Complete with sister-hook.

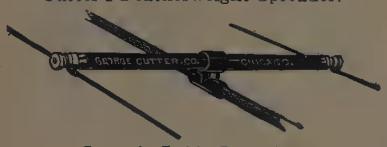
No. S-357. Cutter's Triple Insulation Arm, net, each, $ .75



Cutter's Jupiter Cross Arm.



Cutter's Featherweight Spreader.



Cutter's Guide Spreader.



Cutter's Ajax Cross Arm.



Cutter's Brace Arm.



No. 1000A.



No. 1000B.



No. 1006A.



No. 1006B.

ARMS, Cross (Continued).

Cutter's Jupiter Cross Arm.

An insulating cross arm having wire supports and lamp hook insulated from the support by Cutter's Jupiter Insulator. Cross arm is enameled and metal bound, with grooved knobs at ends.

No. S-358. Cutter's Jupiter Cross Arm . net, each, $1.00

Cutter's Featherweight Spreader.

Made of enameled wood, metal tipped, with porcelain insulator. Used for holding wires equal distances apart.

No. S-359. Cutter's Featherweight Spreader. net, each, .12½

Cutter's Guide Spreader.

Same as above, with collar to clasp suspension cable. Keeps line wires 18 inches apart.

No. S-360. Cutter's Guide Spreader . . net, each, .20

Cutter's Ajax Cross Arm.

An insulating cross arm having both wire supports and lamp hook insulated from the support by Cutter's Jupiter Insulator. Cross arm is of iron with a locking sister-hook.

No. S-361. Cutter's Ajax Cross Arm . . net, each, 1.00

Cutter's Brace Arm.

An enameled and metal bound arm for guiding the wires to street hoods.
Complete with curved pole plate.

No. S-362. Cutter's Brace Arm . . . . . net, each, .28

ARMS, Feeder.

Malleable Iron Railway Feeder Arms.

Two-Pin Arms.		Each.
No. 1000A	For 3 -in. pipe, no pins	$2.20
,, 1001A	,, 4 ,, ,, ,, ,,	2.40
,, 1002A	,, 4½ ,, ,, ,, ,,	2.60
,, 1003A	,, 5 ,, ,, ,, ,,	2.70
,, 1004A	,, 6 ,, ,, ,, ,,	2.80
,, 1005A	,, 7 ,, ,, ,, ,,	3.20
,, 1000B	,, 3 ,, ,, with pins	2.55
,, 1001B	,, 4 ,, ,, ,, ,,	2.75
,, 1002B	,, 4½ ,, ,, ,, ,,	2.95
,, 1003B	,, 5 ,, ,, ,, ,,	3.05
,, 1004B	,, 6 ,, ,, ,, ,,	3.15
,, 1005B	,, 7 ,, ,, ,, ,,	3.55

Four-Pin Arms.		Each.
No. 1006A	For 3 -in. pipe, no pins	$3.20
,, 1007A	,, 4 ,, ,, ,, ,,	3.40
,, 1008A	,, 4½ ,, ,, ,, ,,	3.60
,, 1009A	,, 5 ,, ,, ,, ,,	3.70
,, 1010A	,, 6 ,, ,, ,, ,,	3.80
,, 1011A	,, 7 ,, ,, ,, ,,	4.20
,, 1006B	,, 3 ,, ,, with pins	3.90
,, 1007B	,, 4 ,, ,, ,, ,,	4.10
,, 1008B	,, 4½ ,, ,, ,, ,,	4.30
,, 1009B	,, 5 ,, ,, ,, ,,	4.40
,, 1010B	,, 6 ,, ,, ,, ,,	4.50
,, 1011B	,, 7 ,, ,, ,, ,,	4.90

ARMS, Feeder.



No. 1012A.



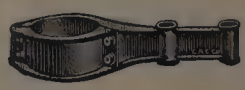
No. 1012B.



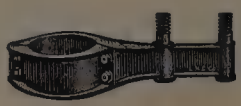
No. 1018A.



No. 1018B.



No. 1024A.



No. 1024B.



No. 1030A.



No. 1030B.

Malleable Iron Railway Feeder Arms
(Continued).

Six-Pin Arms.		Each.
No. 1012A	For 3 -in. pipe, no pins	$4.20
,, 1013A	,, 4 ,, ,, ,, ,,	4.40
,, 1014A	,, 4½ ,, ,, ,, ,,	4.60
,, 1015A	,, 5 ,, ,, ,, ,,	4.70
,, 1016A	,, 6 ,, ,, ,, ,,	4.80
,, 1017A	,, 7 ,, ,, ,, ,,	5.20
,, 1012B	,, 3 ,, ,, with pins	5.25
,, 1013B	,, 4 ,, ,, ,, ,,	5.45
,, 1014B	,, 4½ ,, ,, ,, ,,	5.65
,, 1015B	,, 5 ,, ,, ,, ,,	5.75
,, 1016B	,, 6 ,, ,, ,, ,,	5.85
,, 1017B	,, 7 ,, ,, ,, ,,	6.25

One-Pin Side Arms.		Each.
No. 1018A	For 3 -in. pipe, no pins	$1.70
,, 1019A	,, 4 ,, ,, ,, ,,	1.90
,, 1020A	,, 4½ ,, ,, ,, ,,	2.00
,, 1021A	,, 5 ,, ,, ,, ,,	2.20
,, 1022A	,, 6 ,, ,, ,, ,,	2.40
,, 1023A	,, 7 ,, ,, ,, ,,	2.60
,, 1018B	,, 3 ,, ,, with pins	1.88
,, 1019B	,, 4 ,, ,, ,, ,,	2.08
,, 1020B	,, 4½ ,, ,, ,, ,,	2.18
,, 1021B	,, 5 ,, ,, ,, ,,	2.38
,, 1022B	,, 6 ,, ,, ,, ,,	2.58
,, 1023B	,, 7 ,, ,, ,, ,,	2.78

Two-Pin Side Arms.		Each.
No. 1024A	For 3- in. pipe, no pins	$2.20
,, 1025A	,, 4 ,, ,, ,, ,,	2.40
,, 1026A	,, 4½ ,, ,, ,, ,,	2.60
,, 1027A	,, 5 ,, ,, ,, ,,	2.70
,, 1028A	,, 6 ,, ,, ,, ,,	2.80
,, 1029A	,, 7 ,, ,, ,, ,,	3.00
,, 1024B	,, 3 ,, ,, with pins	2.55
,, 1025B	,, 4 ,, ,, ,, ,,	2.75
,, 1026B	,, 4½ ,, ,, ,, ,,	2.95
,, 1027B	,, 5 ,, ,, ,, ,,	3.05
,, 1028B	,, 6 ,, ,, ,, ,,	3.15
,, 1029B	,, 7 ,, ,, ,, ,,	3.35

Three-Pin Side Arms.		Each.
No. 1030A	For 3- in. pipe, no pins	$2.70
,, 1031A	,, 4 ,, ,, ,, ,,	2.90
,, 1032A	,, 4½ ,, ,, ,, ,,	3.00
,, 1033A	,, 5 ,, ,, ,, ,,	3.20
,, 1034A	,, 6 ,, ,, ,, ,,	3.40
,, 1035A	,, 7 ,, ,, ,, ,,	3.60
,, 1030B	,, 3 ,, ,, with pins	3.23
,, 1031B	,, 4 ,, ,, ,, ,,	3.43
,, 1032B	,, 4½ ,, ,, ,, ,,	3.53
,, 1033B	,, 5 ,, ,, ,, ,,	3.73
,, 1034B	,, 6 ,, ,, ,, ,,	3.93
,, 1035B	,, 7 ,, ,, ,, ,,	4.13

ARMS, Mast (see Fixtures, street, and Fixtures, pole and wall).

Prices on Brady's, Fletcher's, and other makes of mast arms on application.



Cutter's Wind-Braced Mast Arm.

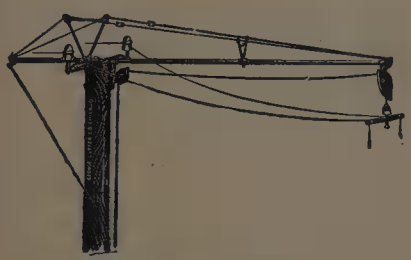
Cutter's Wind-Braced Mast Arm.

A side mast arm with two strain rods which will not give either sideways or downwards. Complete with adjustable tail rod, weatherproof pole pulley, and lamp supporting pulley.

	Overhang.	With Triple Insulation Arm.	With Clamp Knob Only.
No. S-363	8 ft. net, each,	$8.25 net, each,	$7.50
,, S-364	10 ,, ,, ,,	8.75 ,, ,,	8.00
,, S-365	12 ,, ,, ,,	9.75 ,, ,,	9.00
,, S-366	14 ,, ,, ,,	10.25 ,, ,,	9.50
,, S-367	15 ,, ,, ,,	10.50 ,, ,,	9.75
,, S-368	16 ,, ,, ,,	10.75 ,, ,,	10.00
,, S-369	18 ,, ,, ,,	11.25 ,, ,,	10.50
,, S-370	20 ,, ,, ,,	11.75 ,, ,,	11.00

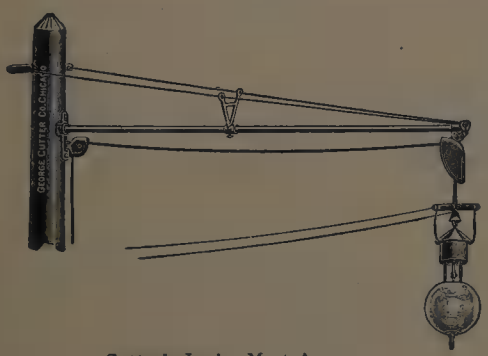
Cutter's Top Mast Arm

Has a novel form of cap, requiring no shaving of top of pole, allowing arm to be swung in any direction. Rigidly braced with two strain rods and furnished complete with pole pulley and a mast-arm pulley.



Cutter's Top Mast Arm.

	Overhang.	With Triple Insulation Arm.	With Clamp Knob Only.
No. S-371	8 ft. net, each,	$8.25 net, each,	$7.50
,, S-372	10 ,, ,, ,,	8.75 ,, ,,	8.00
,, S-373	12 ,, ,, ,,	9.75 ,, ,,	9.00
,, S-374	14 ,, ,, ,,	10.25 ,, ,,	9.50
,, S-375	15 ,, ,, ,,	10.50 ,, ,,	9.75
,, S-376	16 ,, ,, ,,	10.75 ,, ,,	10.00
,, S-377	18 ,, ,, ,,	11.25 ,, ,,	10.50
,, S-378	20 ,, ,, ,,	11.75 ,, ,,	11.00



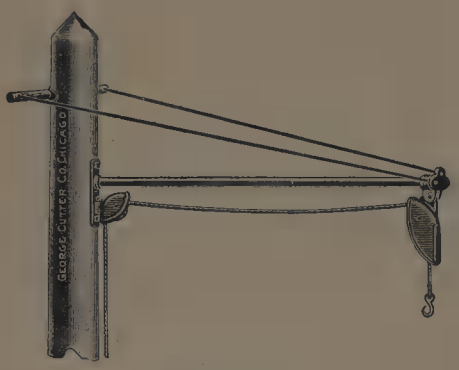
Cutter's Junior Mast Arm.

Cutter's Junior Mast Arm.

A low priced, well braced arm, with two steel strain rods, wrought-iron strain arm, weatherproof pole pulley, and outer lamp supporting pulley.

	Length.	With Triple Insulation Arm.	With Clamp Knob Only.
No. S-379	6 ft. net, each,	$4.65 net, each,	$3.90
,, S-380	8 ,, ,, ,,	5.05 ,, ,,	4.30
,, S-381	10 ,, ,, ,,	5.45 ,, ,,	4.70
,, S-382	12 ,, ,, ,,	5.85 ,, ,,	5.10
,, S-383	14 ,, ,, ,,	6.25 ,, ,,	5.50

ARMS, **Mast** (Continued)



Cutter's Cadet Mast Arm.

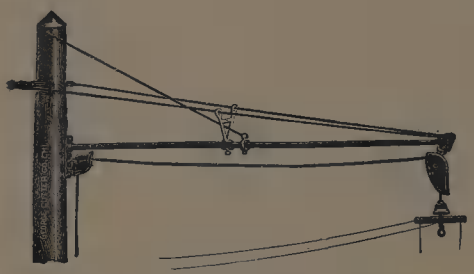
Cutter's Cadet Mast Arm.

Similar to Cutter's Junior Mast Arm but without the stiffening triangle. Shipped complete with strain rods, strain arm, weatherproof pole pulley, and lamp supporting pulley.

No. S-384	4 ft.	net, each,	$3.00
,, S-385	6 ,,	,, ,,	3.40
,, S-386	8 ,,	,, ,,	3.80

With Triple Insulation Arm.

No. S-387	4 ft.	net, each,	$3.75
,, S-388	6 ,,	,, ,,	4.15
,, S-389	8 ,,	,, ,,	4.55



Cutter's Long Junior Mast Arm.

Cutter's Long Junior Mast Arm.

Similar to the Junior Mast Arm but with patent side-braced strain arm and extra support for center of pipe.

	Length.	With Triple Insulation Arm. Net, ea.	With Clamp Knob. Net, ea.	Without Centre Rod, but with Clamp Knob. Net, ea.
No. S-390	6 ft.	$5.05		$4.30
,, S-391	8 ,,	5.45		4.70
,, S-392	10 ,,	5.85		5.10
,, S-393	12 ,,	6.25		5.50
,, S-394	14 ,,	6.85	$6.10	
,, S-395	15 ,,	7.05	6.30	
,, S-396	16 ,,	7.25	7.00	
,, S-397	18 ,,	7.75	7.00	
,, S-398	20 ,,	8.25	7.50	

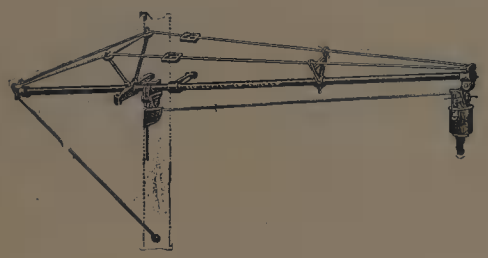


Cutter's Inner Rope Mast Arm.

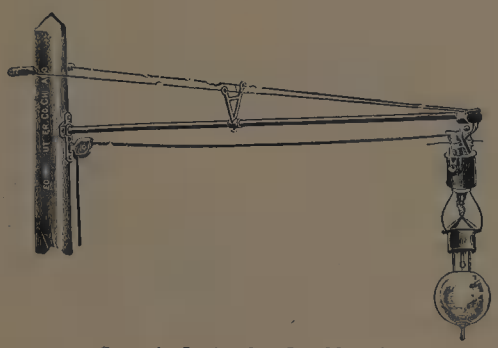
Cutter's Inner Rope Mast Arm.

With regular strain arm and clamp knob only. Rope passes through pipe. Inner pulley and pole plate one piece.

	Length.	Net, each.	Same, Double Braced Strain Arm. Net, ea.	Double Braced Strain Arm Ex. Ctr. Sup. Net, ea.
No. S-399	6 ft.	$3.90	$4.30	
,, S-400	8 ,,	4.30	4.70	
,, S-401	10 ,,	4.70	5.10	
,, S-402	12 ,,	5.10	5.50	
,, S-403	14 ,,	5.50	5.90	
,, S-404	15 ,,			$6.50
,, S-405	16 ,,			6.70
,, S-406	18 ,,			7.20
,, S-407	20 ,,			7.70



Cutter's Cut-Out Mast Arm.



Cutter's Junior Cut-Out Mast Arm.



Cutter's Double-Braced Strain Arm.



Cutter's Strain Arm.



No. 1037.

ARMS, **Mast** (Continued).

Cutter's Cut-Out Mast Arm.

A wind-braced mast arm fitted with cut-out pulley so that lamp can be lowered without breaking circuit or lowering wires. Wires can be run taut.

No.	S-408	8 ft.	overhang, net, each,	$11.50
,,	S-409	10 ,,	,, . ,, ,,	12.00
,,	S-410	12 ,,	,, . ,, ,,	13.00
,,	S-411	14 ,,	,, . ,, ,,	13.50
,,	S-412	15 ,,	,, . ,, ,,	13.75
,,	S-413	16 ,,	,, . ,, ,,	14.00
,,	S-414	18 ,,	,, . ,, ,,	14.50
,,	S-415	20 ,,	,, . ,, ,,	15.00

Cutter's Junior Cut-Out Mast Arm.

Consists of the Junior mast arm with the cut-out pulley at outer end.

		Overhang.	Without Extras. Net, each.	Dbl. Br. Strain Arm. Net, each.	Dbl.Br. Strain Arm. Ex. Ctr. Rod.
No.	S-416	6 ft.	$7.90	$8.30	
,,	S-417	8 ,,	8.30	8.70	
,,	S-418	10 ,,	8.70	9.10	
,,	S-419	12 ,,	9.10	9.50	Net, each.
,,	S-420	14 ,,	9.50	9.90	$10.30
,,	S-421	15 ,,			10.50
,,	S-422	16 ,,			10.70
,,	S-423	18 ,,			10.90
,,	S-424	20 ,,			11.30

Cutter's Strain Arms.

Wrought iron complete with pole plate. Same as used on Junior and Cadet mast arms.

No. S-425. Cutter's Strain Arm, net, ea., $ .60

Double-braced strain arm as used on Long Junior mast arm.

No. S-426. Cutter's Double-Braced Strain Arm.....net, each, $1.00

Philbrick Mast Arm.

An extremely rigid mast arm with side guys directly connected to pole casting, which also has receptacles for pins. The weight of the lamp is nearly counterbalanced by a weight which forms part of a simple locking device.

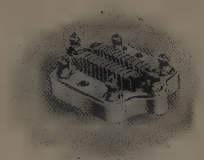
In lowering the lamp it is swung automatically inward toward the pole.

No. 1037. 12-ft. arm, complete.....$20.00
Extra length.....per ft., .50

ARMS, Telephone (see Brackets, telephone).

ARRESTERS, Lightning, see following headings:

Arresters, Lightning, Mason.
,, ,, D. & W.
,, ,, American.
,, ,, Garton.
,, ,, Wurt's.
,, ,, Union.



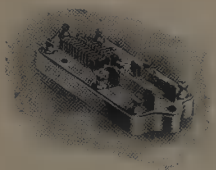
Mason Multi-Discharge Arrester No. 2000.

ARRESTERS, Lightning, Mason.

Mason Multi-Discharge Lightning Arresters.

This arrester offers a good path for legitimate currents but opposes a high choking effect to lightning discharges, the grounding medium of non-fusing material (carbon) being completely encircled by the conductor and exposed to same four times within each convolution of the choke coil, thus securing a multiplicity of discharge points and a consequent efficient dissipation of the lightning.

Where desired to protect the apparatus from high tension currents as well as lightning discharges, it is well to use a fuse in combination with the arrester. The fuse clips are so arranged as to take either a Western Union or a Postal style of fuse.



No. 2001. Arrester with Fuses.

No. 2000.	Arrester without fuses ..... each,	$ .75
,, 2001.	Arrester with fuses ..... ,,	1.00
,, 19.	Fuse only, for same ..... per 100,	2.50



No. 3104.

ARRESTERS, Lightning, D. & W.

D. & W. Telephone and Fire Alarm Protectors.

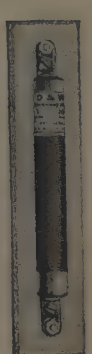
For subscribers' premises. Combination cut-out furnished complete with fuse and sneak coil.

No.		Std. Pkg.	Pkg. Wt.	Each.
3100.	Single Pole Cut-Out,	50	42 lbs.	$ .75
3102.	Single Pole Comb'n Cut-Out,	50	54 ,,	1.60
3104.	Double Pole Comb'n Cut-Out,	50	101 ,,	2.50

Fuses for Above.

Type A screw clamp contact fuses for above arresters, 1 to 4 amperes, 2000 volts.

		Centres.	Std. Pkg.	Pkg. Wt.	Each.
No. 3001	1 amp.	$5\frac{5}{32}$ in.	25	$1\frac{1}{2}$ lbs.	$ .27
,, 3002	2 ,,	$5\frac{5}{32}$,,	25	$1\frac{1}{2}$,,	.27
,, 3003	3 ,,	$5\frac{5}{32}$,,	25	$1\frac{1}{2}$,,	.27
,, 3004	4 ,,	$5\frac{5}{32}$,,	25	$1\frac{1}{2}$,,	.27





No. 3100. No. 3102.

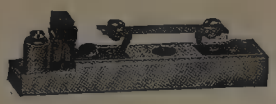
Sneak Coils for Above.

For telephone service we recommend a $\frac{8}{10}$-ampere sneak coil, and for fire alarm service a $\frac{5}{10}$-ampere sneak coil.

		Length.	Std. Pkg.	Pkg. Wt.	Each.
No. 3110	$\frac{1}{10}$ amp.	$1\frac{7}{8}$ in.	25	$\frac{1}{2}$ lb.	$ .29
,, 3210	$\frac{2}{10}$,,	$1\frac{7}{8}$,,	25	$\frac{1}{2}$,,	.29
,, 3310	$\frac{3}{10}$,,	$1\frac{7}{8}$,,	25	$\frac{1}{2}$,,	.29
,, 3410	$\frac{4}{10}$,,	$1\frac{7}{8}$,,	25	$\frac{1}{2}$,,	.29
,, 3510	$\frac{5}{10}$,,	$1\frac{7}{8}$,,	25	$\frac{1}{2}$,,	.29



No. 18.



No. 47.



No. 51.



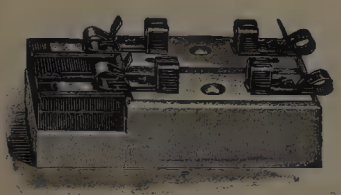
No. 67.



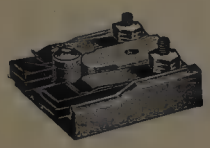
No. 85.



No. 86.



No. 87.



No. 99.

ARRESTERS, Lightning, American.

American Lightning Arresters and Fuse Blocks.

No. 18. Protector is a single pole mica fuse block, Western Union style. (Use No. 19 fuse.) ..... each, $ .18

No. 20. Fuse block is made for use with Postal style fuses. (Use No. 21 fuse.) .... each, .18

No. 39. Fuse block is a Postal style block equipped with wing nuts for holding fuses. (Use No. 21 fuse.) ..... each, .20

No. 41. Protector is similar in design to No. 85. It is made for use on single and grounded lines. It includes carbon lightning arrester and mica fuses. (Use No. 19 fuse.) ..... each, .24

No. 42. Fuse block is a single pole fuse and carbon lightning arrester mounted on porcelain base, Western Union style. (Use No. 8 fuse.) ..... each, .24

No. 47. Block is similar to No. 42, but is made with Postal style fuse. (Use No. 11 fuse.) each, .24

No. 51. Fuse block is made with extra long fuse and centre plate lightning arrester, Western Union type fuses. (Use No. 22 fuse.) ..... each, .30

No. 54. Fuse block is similar to No. 51, but is made for use with Postal style fuse. (Use No. 25 fuse.) ..... each, .30

No. 57. Fuse block is a double pole lightning arrester, with upright carbons and Western Union fuse. (Use No. 8 fuse.) each, .40

No. 59. Fuse block is a double pole lightning arrester with upright carbons and Postal style fuse. (Use No. 11 fuse.) .... each, .40

No. 67. Fuse block is the same as No. 69 except the flat carbons are furnished instead of upright. (Use No. 8 fuse.) ..... each, .50

No. 69. Fuse block is made with high side walls and middle porcelain strip to prevent arcing. It is covered with mica cover. It includes two mica fuses and carbon lightning arresters. (Use No. 8 fuse.) .. each, .50

No. 85. Protector is a double pole lightning arrester and fuse block with cover. It is a high-grade protector in every particular and is for use on metallic lines. (Use No. 19 fuse.) ..... each, .60

No. 86. Fuse block is a double pole carbon lightning arrester with flat carbon and Western Union fuse. (Use No. 8 fuse.) each, .40

No. 87. Protector is made with special spring wire connection. It includes standard carbon lightning arresters and mica fuses with spring clip mountings. (Use No. 19 fuse.) ..... each, .70

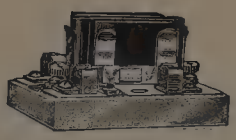
No. 89. Protector is a double pole lightning arrester with flat carbon and Postal style fuse. (Use No. 11 fuse). ..... each, .40

No. 99. Carbon lightning arrester is an inexpensive but an efficient protector. It is very compact and well made. (Has no fuses.) ..... each, .30

ARRESTERS, Lightning, American.



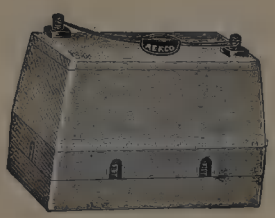
No. 300.



No. 401.



No. 402.



No. 405.



No. 501.



No. 512.

American Lightning Arresters and Fuse Blocks (Continued).

No. 204. Protector is similar in design to No. 402, but is made for indoor use, and therefore has no cap or cover. It is especially recommended for toll lines and country work and has a very efficient self-cleaning, dust-proof lightning arrester. (No fuse.) ..... each, $ .40

No. 300. Protector is an ordinary, double-pole fuse block with porcelain cover, used with either Western Union or Postal fuse each, .40

No. 400. Protector was designed especially for toll line work and for other service where a large carbon lightning arrester without fuse is desired. It is a very efficient protector. (No fuse.) ..... each, .40

No. 401. Protector is the same as No. 404, but is furnished with Western Union style fuse with spring clip contacts. (Use No. 8 fuse.) ..... each, .70

No. 402. Protector is made to be used on the pole or at the outside of a building. It has porcelain base upon which are mounted large carbon lightning arresters, the entire protector being covered with a galvanized iron cap. The wires come up through the base of the protector, where they are held in place by clamping screws. This protector is waterproof, and when placed in service is a more efficient guarantee against lightning troubles on the line than any similar protector made for outdoor use. (No fuse.) ..... each, 1.00

No. 403. Protector is similar in design to No. 404, but is equipped with wing nut contacts instead of the ordinary screws used on Postal style mountings. (Use No. 11 fuse.) ..... each, .70

No. 404. Protector is the same as No. 400 excepting that Postal style fuses are mounted on the same block with the lightning arrester. (Use No. 11 fuse.) ..... each, .70

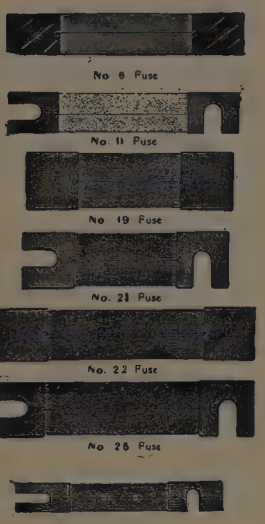
No. 405. Protector is the same as No. 400 protector, but is included within a porcelain cover, thus making it dust-proof and free from liability of being tampered with. The cover may be sealed. (No fuse.) .. each, .70

No. 500 is a double-pole combined cut-out, carbon lightning arrester and fuse block. It is designed for use on metallic lines and is specially recommended for toll line work. (Use No. 19 fuse.) ..... each, 1.50

No. 501. Protector is a single-pole combined cut-out carbon lightning arrester and fuse block. It is especially recommended for grounded or farmer's lines. (Use No. 19 fuse.) ..... each, .80

No. 511. Protector is a cut-out and carbon lightning arrester only, without fuses, being designed for the same purpose as No. 501, and is to be used where fuses are not desired with a cut-out. (No fuse.) each, .60

No. 512. Protector is designed for the same purpose as No. 500, and is to be used where only carbon lightning arrester is desired with cut-out, the fuse being omitted. (No fuse.) ..... each, 1.20



No. 137.

ARRESTERS, Lightning, American.

American Lightning Arresters and Fuse Blocks (Continued).

Fuses for Above Arresters.

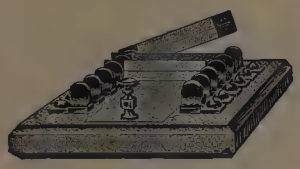
The American patented enclosed fuse has the fuse wire soldered to the copper terminals on ends of fuse and entirely enclosed by two strips of mica.

It is unbreakable in ordinary use and is recommended as the best mica fuse manufactured. Made in all sizes.

The following are the standard fuses of the ordinary type:

			Copper.	Foil.	En-closed Copper.	En-closed Foil.
No.	8.	Fuse.....per 100,	$2.50	$2.00	$2.50	$2.00
,,	11.	,, ... ,,	2.50	2.00	2.50	2.00
,,	19.	,, ... ,,	2.50	2.00	2.50	2.00
,,	21.	,, ... ,,	2.50	2.00	2.50	2.00
,,	22.	,, ... ,,	2.50	2.00	2.50	2.00
,,	25.	,, ... ,,	2.50	2.00	2.50	2.00
,,	137.	,, ... ,,	2.50	2.00	2.50	2.00

State amperage wanted in ordering.



No. 142.

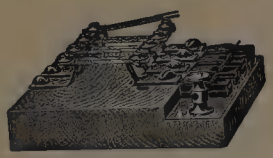
American Multiple Lightning Arresters and Fuse Strip.

No. 142. Fuse strip is a strip of Western Union mica fuses mounted on a wood base with center plate ground strip. (Use No. 22 fuse) per single line, $ .24

No. 144. Fuse strip is a strip of Postal fuses with center plate ground strip mounted on wooden base. (Use No. 25 fuse.).....per single line, .24

No. 179. Fuse strip is a strip of Western Union mica fuses and carbon lightning arresters mounted on a hard-wood base. (Use No. 19 fuse) per single line, .26

No. 181. Fuse strip is a strip of Postal fuses and carbon lightning arresters mounted on a hard-wood base. (Use No. 21 fuse.).....per single line, .26



No. 181.

ARRESTERS, Lightning, Garton.

Garton Lightning Arresters.

The Garton lightning arrester consists of an air gap in a shunt path to earth, and a circuit breaker in series with same but *not at the air gap*. The circuit breaker has a carbon contact and is enclosed in a tube which smothers the arc of the current following the discharge, leaving the arrester ready for the next flash without attention. State if for A. C. or D. C. current in ordering.



No. 834.



No. 835.

Type D. F. Garton Arresters.
0 to 350 Volts D. C. or A. C. Current.

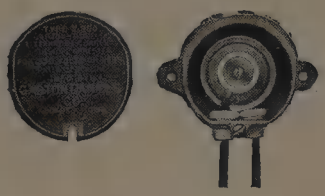
The station arrester is polished and lacquered. The pole arrester with either wood or iron cover is dipped finish only.

Air-gap distance is .020 inch.

			Weight.	List.
No.	834.	Station type, $8\frac{1}{2}$ x 3 x 3 in.	$3\frac{1}{4}$ lbs.	$6.40
,,	835.	Iron covered, $12\frac{1}{2}$ x 6 x 4 in.	$12\frac{1}{2}$,,	7.80
,,	836.	Wooden covered, $13\frac{1}{2}$ x 7 x 6 in.	$6\frac{3}{4}$,,	6.40



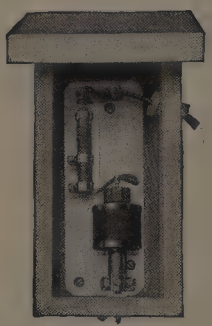
No. 836.



No. 300.



No. 3945.



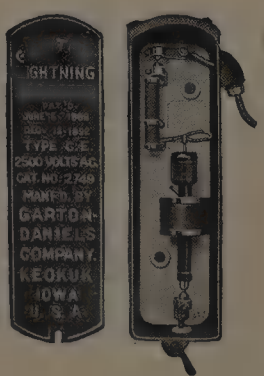
No. 3941.



No. 3940.



No. 2745.



No. 2749.



No. 2750.

ARRESTERS, Lightning, Garton (Continued).

Type T. Garton Arrester.
0 to 350 Volts Alternating Current.

For use where long secondaries are run from transformers, for the protection of individual series A. C. arc lamps, or any incandescent circuits of alternating current of 350 volts or less.

This arrester consists of two large circular discharge plates separated by an air-space of .020 inch at their beaded edges.

Over this air-gap a heavy discharge may pass, while light discharges and static surges will pass to earth, more slowly, through the high resistance disk that separates the larger metallic disks. In the event of the discharge being heavy, it will jump the spark-gap, but the low voltage of the normal current will not maintain an arc, owing to the cooling effect of the heavily beaded disk.

No. 300. Complete arrester, wt. 2 lbs. 10 oz., each, $3.00

Type E. G. Garton Arresters.
350 to 750 Volts, Direct Current.

The station arrester is polished and lacquered.

The pole and car arrester has a dipped metal finish, but aside from this is the same as the station type.

For car service the iron-covered arrester is recommended, although arresters will be furnished for car service enclosed in wooden boxes as listed below.

The air-gap distance in this arrester is .025 inch. The series resistance averages 60 ohms.

Use from five to seven arresters per mile of pole line, with arresters and kicking coils on each car.

In ordering state if for use on a metallic or grounded circuit.

	Station Type.		Weight.	List.
No. 3945	$9\frac{7}{8} \times 3\frac{5}{8} \times 3$ in.		$4\frac{1}{2}$ lbs.	$7.00
	Iron Covered.			
,, 3940	$13\frac{1}{2} \times 6\frac{1}{2} \times 4\frac{1}{2}$,,		$13\frac{1}{2}$,,	8.00
	Wooden Covered.			
,, 3941	$14\frac{1}{2} \times 7 \times 6\frac{1}{4}$,,		$8\frac{1}{2}$,,	7.00
	Iron Car Type.			
,, 3942	$13\frac{1}{2} \times 6\frac{1}{2} \times 4\frac{1}{2}$,,		$13\frac{1}{2}$,,	8.00
	Wooden Car Type.			
,, 3943	$14 \times 7 \times 6\frac{1}{4}$,,		$8\frac{1}{2}$,,	7.00

Type F. H. Garton Arresters.
Alternating Current 350 to 1,200 Volts.

No.		Ins.	Wt. Lbs.	List.
1745	Station type,	$10\frac{1}{2} \times 3\frac{5}{8} \times 3$	8	$7.00
1749	Iron covered,	$14\frac{1}{8} \times 6\frac{1}{2} \times 4\frac{1}{2}$	22	8.20
1750	Wooden covered,	$14\frac{1}{2} \times 7 \times 6\frac{1}{4}$	11	7.00

Type C. E. Garton Arresters.
1,200 to 2,500 Volts Alternating Current.

The C. E. type arrester has proven to be of high efficiency and to overcome entirely the weaknesses discovered in other forms. For alternating current electric railway systems these arresters are perfectly adapted, the conditions being similar to those existing on grounded neutral circuits. Where but one trolley wire is used, these arresters should be installed in the same manner as direct current systems. If two trolleys are employed, the rail forming the other side of the circuit, arresters should be placed on each of the exposed wires, the same ground being used and this wire connected with the rail.

No.		Ins.	Wt. Lbs.	List.
2745	Station type,	$14 \times 3\frac{1}{2} \times 3\frac{3}{4}$	$6\frac{3}{4}$	$8.80
2749	Iron covered,	$16\frac{7}{8} \times 6 \times 5$	21	10.00
2750	Wooden covered,	$19 \times 7\frac{1}{2} \times 7\frac{1}{4}$	$12\frac{1}{2}$	8.80

ARRESTERS, Lightning, Garton (Continued).

Type F. Garton Arresters.
2,500 to 3,500 Volts Alternating Current.

Construction and finish same as Type C. E. arresters. The difference is in size of base, the additional air-gap and the resistance of the resistance rod. Iron covers have been discontinued on voltages above 2,500 owing to the difficulty of providing proper insulation. Total air-gap distance is $\frac{9}{64}$ inch. Series resistance averages 400 ohms.

Suitable for alternating current arc systems.

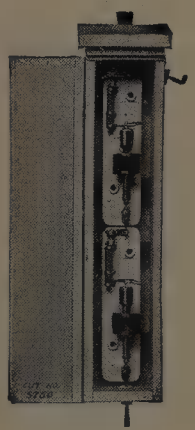
			Weight.	
No. 3745	Station type,	15 x 4 x 3⅞ in.	8½ lbs.	each, $10.00
,, 3750	Wooden cover,	10¼ x 8¾ x 8 ,,	15¾ ,,	,, 10.00

Type C. E. Garton Arresters.
3,500 to 5,000 Volts Alternating Current.

Iron covers are not furnished for this type owing to the danger of short circuits.

These arresters consist of two 2,500-volt units connected in series. The station type is mounted on suitable, impregnated insulating supports, as shown in the cut. The pole type is furnished in a substantially made cover, with hinged door. Hinges and catches of brass to avoid rusting. Insulating bushings are supplied for the leading-in wire, and straps for fastening the arresters in position. Series resistance, 550 ohms.

Air-gap, $\frac{3}{16}$-inch.



No. 5750.

			Weight.	List.
No. 5745	Station type,	37¾ x 8 x 7 in.	20 lbs.	$22.00
,, 5750	Wooden covered,	36 x 8 x 7½ ,,	26½ ,,	22.00

Type F. Garton Arresters.
5,000 to 6,600 Volts Alternating Current.

The arresters for this voltage consist of two of the Type F units connected in series. The station arresters are mounted on suitable insulating supports. The pole arresters are provided with wooden covers of the well known weatherproof construction; all hinges, catches, etc., are of brass, to avoid rust.

For single phase electric railway work of 6,000 volts these arresters are particularly well adapted.

The total air-gap distance in the 6,600-volt arrester is $\frac{9}{32}$-inch. The series resistance averages 950 ohms.

			Weight.	
No. 6745	Station type,	37½ x 8 x 18¾ in.	33½ lbs.	each, $23.80
,, 6750	Wooden covered,	37 x 10½ x 15¾ ,,	44 ,,	,, 23.80

Type C. E. Garton Arresters.
6,600 to 7,500 Volts Alternating Current.

Same as above, but with three 2,500-volt units in series. Series resistance, 825 ohms. Air-gap, $\frac{9}{32}$-inch.

			Weight.	List.
No. 7745	Station type,	54½ x 8 x 18¾ in.	40 lbs.	$36.40
,, 7750	Wooden covered,	48⅝ x 12⅝ x 16½ ,,	52 ,,	36.40

Type F. Garton Arresters.
7,500 to 8,500 Volts.

Three of the Type F units connected in series make up the 7,500 to 8,500 volt arresters.

The station arresters are mounted on an impregnated insulating frame-work, and this is furnished with porcelain insulators for supporting the whole.

The pole arresters are enclosed in well-made wooden covers with hinged door and brass fittings; leading-in wires are protected by heavy porcelain bushings. For supporting this arrester on the pole, porcelain insulators are furnished, with angle brackets.

This arrester is especially adapted to transmission work and to series alternating arc circuits. The total air-gap distance in the 8,500 volt arrester is $\frac{7}{64}$-inch; the series resistance is 1,425 ohms.

			Weight.	
No. 8745	Station type,	52¾ x 8 x 18¾ in.	45 lbs.	each, $39.10
,, 8750	Wooden covered,	52¼ x 10½ x 16½ ,,	50 ,,	,, 39.10

ARRESTERS, Lightning, Garton (Continued).

Type F. Garton Arresters.
8,500 to 10,000 Volts Alternating Current.

Same as above, but with four 2,500-volt units in series. Series resistance, 1,900 ohms. Air-gap, $\frac{9}{16}$-inch.

	Station Type.	Weight.	List.
No. 10745	68 x 8 x 18¼ in.	48 lbs.	$48.60
	Wooden Covered.		
No. 10750	65½ x 12⅝ x 16½ in.	67 lbs.	$48.60

Type F. Garton Arresters.
10,000 to 20,000 Volts Alternating Current.

These arresters consist of five, six, seven, and eight 3,300-volt units in series respectively. They are mounted in a straight line, one above another, giving a straight path to earth for the discharge.

Prices include impregnated mountings, with porcelain suspending brackets. The total air-gap distance in the 20,000 volt arrester is 1⅛-inch. The series resistance averages 3,800 ohms. Station type only.

No.	Volts.	Dimensions. Ins.	Wt. Lbs.	List.
12745	10000 to 12500	83¼ x 8 x 19¼	73	$60.90
15745	12500 to 15000	98½ x 8 x 19¼	102	73.90
17745	15000 to 17500	113¾ x 8 x 19¼	117	89.00
20745	17500 to 20000	129 x 8 x 19¼	132	100.00

Type C. E. Garton Panels, Complete.
Alternating Current to 5,000 Volts.



No. 1500.

The panel-board shown in cut on this page should be used on each circuit as nearly as possible to the point where the wires enter the station. It consists of an arrester for each side of the circuit with a properly designed kicking-coil, all mounted on a blue Vermont marble base, with terminals for connection with the circuit. The kicking-coil is for the side of the circuit which runs directly from the switch to the lamps. No kicking-coil is needed on the other side of the circuit, as the regulator acts as a kicking-coil on the side of the circuit to which it is connected.

Pole arresters, such as shown in No. 2750, should be used on each side of the circuit at intervals of one-half mile. The same arrester is also furnished in iron cover as listed below. These offer the discharges paths to earth before coming to the station and insure a high degree of protection when properly installed.

Pole arresters for this service are furnished in standard iron and wooden covers, which are thoroughly weatherproof, and provided with insulating bushings for the leading-in wires. Iron covers are not furnished for voltages above 2,500, wooden covers only being suited for the higher voltages.

	Volts.	Inches.	Weight.	List.
No. 1500	Up to 2500	14 x 27	43 lbs.	$42.00
,, 1600	2500 ,, 5000	30 x 27	90 ,,	66.00

ARRESTERS, Lightning, Garton (Continued).

Garton Series Arc Circuit Arresters.

			List.
Alternating Current up to 5,000 Volts.			
No. 2745	Up to 2500	Station Type,	$8.80
,, 2749	,,	Iron Covered,	10.00
,, 2750	,,	Wooden Covered,	8.80
,, 3745	2500 to 4000	Station Type,	10.00
,, 3750	,,	Wooden Covered,	10.00
,, 5745	4000 to 5000	Station Type,	22.00
,, 5750	,,	Wooden Covered,	22.00
Direct Current up to 4,000 Volts.			
No. 4753	Up to 4000	Station Type,	$8.80
,, 4756	,,	Wooden Covered,	8.80



Type S.

Garton Kicking-Coils.

Kicking-coils (choke coils) are recommended for use between above arresters and the apparatus to be protected, for the reason that lightning will jump across the small air-gap of the arrester and go to ground direct rather than go through the turns and coils of the kicking-coil, owing to the self induction or reactive effect of a coil on currents of a highly oscillatory character.

Kicking-coils should be placed in each side of the circuit.

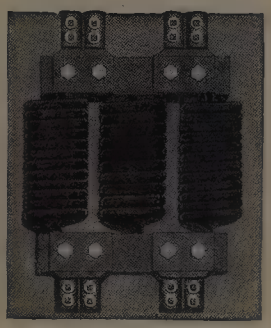
Type S. Kicking-Coils.

Type S coils of 50 ampere capacity and above have removable terminals.

			Weight.	List.
No. 767	10 amps.	diam., $6\frac{5}{8}$ x $2\frac{1}{2}$	4 lbs.	$3.60
,, 768	20 ,,	,, $6\frac{5}{8}$ x $2\frac{1}{2}$	4 ,,	4.80
,, 769	30 ,,	,, $6\frac{5}{8}$ x $2\frac{1}{2}$	4 ,,	5.76
,, 770	40 ,,	,, $6\frac{5}{8}$ x $2\frac{1}{2}$	4 ,,	6.72
,, 771	50 ,,	,, $8\frac{1}{8}$ x $3\frac{7}{16}$	$9\frac{1}{4}$,,	8.00
,, 772	100 ,,	,, $8\frac{1}{8}$ x $3\frac{7}{16}$	$9\frac{1}{4}$,,	8.50
,, 773	125 ,,	,, $8\frac{1}{8}$ x $3\frac{7}{16}$	$9\frac{1}{4}$,,	9.00
,, 774	175 ,,	,, $9\frac{5}{8}$ x $3\frac{9}{16}$	$16\frac{1}{4}$,,	10.00
,, 775	225 ,,	,, $9\frac{5}{8}$ x $3\frac{9}{16}$	$16\frac{1}{4}$,,	10.50
,, 776	260 ,,	,, $9\frac{5}{8}$ x $3\frac{9}{16}$	$16\frac{1}{4}$,,	11.00



Type A. F. 325 to 500 Amps.



Type A. M. F. 600 to 2,000 Amps.

Types A. F. and A. M. F. Kicking-Coils.

	Type.	Amps.	Inches.	Weight.	List.
No. 975	A.F.	50	$10\frac{1}{2}$ x $4\frac{3}{8}$ x 5	$8\frac{1}{2}$ lbs.	$9.90
,, 976	,,	125	$10\frac{1}{2}$ x $4\frac{3}{8}$ x 5	$8\frac{1}{2}$,,	11.00
,, 977	,,	160	12 x 5 x 5	11 ,,	11.50
,, 978	,,	200	12 x 5 x 5	$11\frac{1}{2}$,,	11.90
,, 979	,,	250	12 x 5 x 5	$12\frac{1}{4}$,,	12.10
,, 980	,,	325	5 x $15\frac{1}{2}$ x $4\frac{5}{8}$	$15\frac{1}{2}$,,	13.20
,, 981	,,	400	5 x 16 x $4\frac{11}{16}$	$18\frac{3}{4}$,,	18.70
,, 982	,,	500	5 x $16\frac{3}{8}$ x $4\frac{15}{16}$	$21\frac{1}{4}$,,	27.50
,, 983	A.M.F.	600	10 x 17 x $4\frac{5}{8}$	$33\frac{3}{4}$,,	29.70
,, 984	,,	800	10 x $18\frac{1}{2}$ x $4\frac{11}{16}$	$37\frac{3}{4}$,,	35.20
,, 985	,,	1000	10 x $20\frac{7}{8}$ x $4\frac{15}{16}$	$48\frac{3}{4}$,,	49.50
,, 986	,,	1200	12 x 22 x $4\frac{5}{8}$	$65\frac{1}{2}$,,	55.00
,, 987	,,	1500	12 x 22 x $4\frac{15}{16}$	72 ,,	67.10
,, 988	,,	1600	14 x 23 x $4\frac{11}{16}$	$89\frac{3}{4}$,,	74.80
,, 989	,,	2000	14 x 23 x $4\frac{15}{16}$	102 ,,	105.60

In ordering, always give capacity in amperes, size of wire or cable for which terminals are to be provided. If Type A. M. F. coils, state the number of terminals at each end of coil.



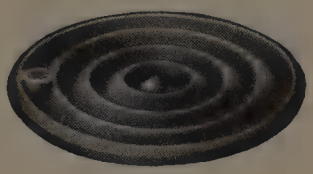
No. 320.

Car Type Kicking-Coils.

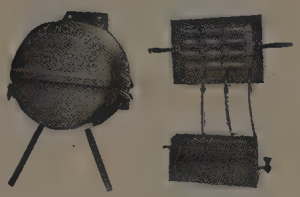
		Diameter.	Weight.	List.
No. 320	75 amps.	$7\frac{1}{2}$ x $5\frac{1}{2}$ x 4 in.	4 lbs.	$7.90
,, 321	125 ,,	$7\frac{1}{2}$ x $5\frac{1}{2}$ x 4 ,,	$5\frac{1}{4}$,,	9.70
,, 322	150 ,,	$7\frac{1}{2}$ x $5\frac{1}{2}$ x $4\frac{1}{4}$,,	6 ,,	11.50
,, 323	175 ,,	$7\frac{1}{2}$ x $5\frac{1}{2}$ x $4\frac{1}{4}$,,	$6\frac{3}{4}$,,	13.30
,, 324	200 ,,	$7\frac{1}{2}$ x $5\frac{1}{2}$ x $4\frac{1}{4}$,,	$7\frac{1}{2}$,,	14.80



No. 102. No. 101. No. 100.



No. 103.



No. 47417-A. No. 3287.



No. 1811.



No. 1810.



No. 62133.

ARRESTERS, Lightning, Garton (Continued).

Ground Pipe Fittings and Plates.

The proper installation of arresters is of no less importance than the choice of the arrester used. The ground connection provided must be as nearly perfect as possible, and one that will remain so through long-continued service. A pipe driven into the earth at the foot of the pole provides a permanent ground and one that may be relied upon at all times. For this purpose we manufacture the ground point fittings illustrated herewith. These are tapped for use with $\frac{3}{4}$-inch iron pipe, and consist of the brass cap No. 100, with lug for soldering in ground wire from the arrester. No. 101 is a brass coupling for connecting upper and lower sections (it being more convenient to drive an 8 or 10-foot length and then couple on another length than to drive a 16 or 20-foot length). This brass coupling No. 101 is also provided with a lug for soldering in wire to rail when used on electric railway circuits. The driving point No. 102 is of malleable iron, with dipped galvanized finish.

		In.	Weight.	List.
No. 100	Brass Cap,	$1\frac{7}{8}$ x 1 x $1\frac{9}{16}$	5 oz.	$ .50
,, 101	Brass Coupling,	$1\frac{9}{16}$ x $1\frac{3}{4}$ x $1\frac{5}{16}$	5 ,,	.40
,, 102	Mall. Point,	$3\frac{1}{2}$ x $1\frac{7}{16}$ x $1\frac{7}{16}$	9 ,,	.50
,, 103	Gray Iron Plate,	12 x 12 x $\frac{3}{4}$	9 lbs.	1.20

ARRESTERS, Lightning, Wurt's.

Wurt's Non-Arcing Arresters.

Type M. P.

No. 47417-A...0 to 1,000 volts.....each, $5.65

For line or car use, single pole, either direct or alternating circuits. May also be used as a station arrester.

Type 6.

Choke coils for use with above as follows:—

No. 2536.....65 amps. capacity.....each, $8.50
,, 3811.....125 ,, ,, ... ,, 15.00

Type T.

No. 1041A..... 300 amps.....each, $155.00
,, 1041B.....600 ,, ... ,, 175.00
,, 1041C.....900 ,, ... ,, 225.00
,, 3287.....1,200 ,, ... ,, 300.00
,, 2857A.....1,500 ,, ... ,, 550.00
,, 2857B.....2,000 ,, ... ,, 775.00

Tank lightning arresters for direct current circuits, railway service.

Type I.

No. 1810.....each, $10.00

Single pole station arrester for arc circuits up to 4,000 volts direct current.

Type J.

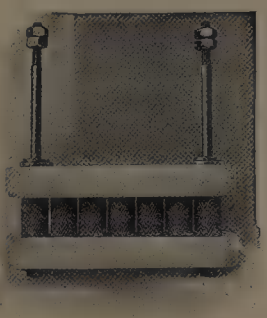
No. 1811.....each, $7.00

This arrester is similar to No. 1810 but is enclosed in an iron box for line use on direct current arc circuits up to 4,000 volts.

Type C.

No. 62133. Complete with case.....each, $5.65
,, 48231. Unit without case..... ,, 3.00
,, 62189. Unit with binding posts..... ,, 2.50

Double pole alternating current arrester for circuits of 500 to 1,250 volts. Single pole up to 2,500 volts.



No. 9587 A.

ARRESTERS, Lightning, Wurt's.

Wurt's Non-Arcing Arresters (Continued).

Low Equivalent Arresters.

No. 16598	2500– 3600 volts	each,	$37.50
,, 16599	3600– 6000 ,,	,,	75.00
,, 16600	6000– 8500 ,,	,,	110.00
,, 16601B	8500–12500 ,,	,,	120.00
,, 16602B	12500–18000 ,,	,,	150.00
,, 16603B	18000–25000 ,,	,,	200.00
,, 25028A	25000–29000 ,,	,,	250.00
,, 25029A	29000–37000 ,,	,,	300.00
,, 75881	37000–50000 ,,	,,	450.00
,, 9587	Arrester unit	,,	1.15

For high potential alternating current transmission circuits.

For circuits exceeding 37,000 volts prices of arresters will be furnished on application.

With each low equivalent arrester we recommend use of the following disconnecting switches:

No. 50382	6600 volts	each,	$18.00
,, 50383	13000 ,,	,,	21.50
,, 50384	22000 ,,	,,	25.00
,, 50384	33000 ,,	,,	48.00
,, 50385	60000 ,,	,,	54.00
,, 35299.	Hook handle for switches to 13000 volts,	,,	5.00
,, 35403.	,, ,, ,, ,, ,, 66000 ,,	,,	6.50

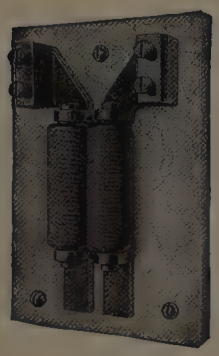


No. 46185.

Safety Gaps.

For protecting the low tension side of transformers for abnormal voltages up to 4,500 volts, or may be used as a lightning arrester for individual series arc lamps.

No. 46185.	Outdoor type	each,	$2.00
,, 4753.	Indoor type	,,	4.00



No. 4753.

Choke Coils Type 7.

Standard sizes from 7 to 260 amperes carrying capacity, 2,500 to 25,000 volts for use with low Equivalent Lightning Arresters. Prices on application.

Union Lightning Arrester

Serves as peg cut-out, lightning arrester, and ground wire switch. An excellent and cheap form for amateur and all short lines.

No. 1784.	Union arresters	each,	$ .60
,, 1785.	Extra pegs	,,	.12



Type 7.



Union Lightning Arrester.

ART GLASS Shades (see Shades).

ASBESTOS.

Asbestos Building Lumber.

Asbestos building lumber consists of asbestos and cement rolled into sheet form. In the finished form it possesses extraordinary toughness and hardness and can be cut, sawed, drilled, and nailed.

It is moisture proof and has high insulating qualities.

Used for underflooring of cars, backing for switches, cut-outs, etc., barriers, sheathing and roofing of car barns, partitions, doors, compartments of oil-switches, panels, etc.

Asbestos Century Sheathing.

Color, Newport gray. Standard size of sheets, 42 x 48 inches and 42 x 96 inches. Irregular sizes, shapes, etc., cut to order at additional charge.

ASBESTOS.

Asbestos Building Lumber (Continued).

Asbestos Century Sheathing

No.					Per Sq. Ft.
H-433	$\frac{1}{8}$	in. thick,	sheathing	....	$ .10
H-434	$\frac{5}{32}$	,,	,,	....	.12½
H-435	$\frac{3}{16}$	,,	,,	....	.15
H-436	$\frac{7}{32}$	,,	,,	....	.17½
H-437	$\frac{1}{4}$	,,	,,	....	.20
H-438	$\frac{9}{32}$	,,	,,	....	.22½
H-439	$\frac{5}{16}$	,,	,,	....	.25
H-440	$\frac{11}{32}$	,,	,,	....	.27½
H-441	$\frac{3}{8}$	,,	,,	....	.30
H-442	$\frac{13}{32}$	,,	,,	....	.32½
H-443	$\frac{7}{16}$	,,	,,	.....	.35
H-444	$\frac{15}{32}$	,,	,,	.....	.37½
H-445	$\frac{1}{2}$	,,	,,	.....	.40
H-446	$\frac{17}{32}$	,,	,,	.....	.42½
H-447	$\frac{9}{16}$	,,	,,	.....	.45
H-448	$\frac{19}{32}$	,,	,,	.....	.47½
H-449	$\frac{5}{8}$	,,	,,	.....	.50

Asbestos Century Shingles.

Shingles or roofing slates are sold by the hundred, shipped in boxes (charged at cost). Color, Newport gray.

			Per 100.
No. H-450	8 x 8 in.	shingles, 70 lbs. per 100,	$5.00
,, H-451	12 x 12 ,,	,, 150 ,, ,, ,,	15.00
,, H-452	16 x 16 ,,	,, 280 ,, ,, ,,	18.00

Asbestos Sheathing or Roll Millboard.



Asbestos Paper.

An asbestos paper for lining cut-out or distribution boxes, meter and switch panels, etc.; comes in rolls of 100 pounds; short lengths cut as desired.

Thicknesses and weights as follows:

				Net, Per Lb.
No. S-425	$\frac{1}{64}$	in. thick =	6 lbs. per 100 sq. ft.	$ .10
,, S-426	$\frac{1}{32}$	,, ,, =	10 ,, ,, ,, ,, ,, ...	.10
,, S-427	$\frac{3}{64}$	,, ,, =	14 ,, ,, ,, ,, ,, ...	.10
,, S-428	$\frac{1}{16}$	,, ,, =	30 ,, ,, ,, ,, ,, ...	.10
,, S-429	$\frac{3}{32}$	,, ,, =	45 ,, ,, ,, ,, ,, ...	.12
,, S-430	$\frac{1}{8}$	,, ,, =	60 ,, ,, ,, ,, ,, ...	.12

Sheet Asbestos Millboard.



Sheet Asbestos Millboard.

Not as flexible as the roll millboard. Comes in sheets about 40 inches square, from $\frac{1}{32}$ inch to $\frac{1}{2}$ inch thick, at following weights per sheet approximately:

In.	Lbs.	In.	Lbs.	In.	Lbs.	In.	Lbs.
$\frac{1}{32}$	2	$\frac{1}{16}$	3¾	$\frac{3}{32}$	5¾	$\frac{1}{8}$	7½
$\frac{3}{16}$	11½	$\frac{1}{4}$	13	$\frac{3}{8}$	22½	$\frac{1}{2}$	25

No. S-431. Asbestos millboard.....per lb., $ .14

ASBESTOS Paint (see P).

ASPHALT Varnish (see V).

ASPHALTUM.

No. 1 Asphaltum.

This is a quick drying, glossy asphaltum paint, especially adapted for machinery that must be shipped from the factory or warehouse in good condition, on short notice. It will dry in fifteen minutes, leaving no disagreeable odor or effect from the rapid evaporation of the solvents used in its manufacture. It is particularly valuable and extensively used for painting car trucks, street railway fenders, fronts of boilers, or in fact any machinery that it is desirable to paint. A fresh coat of Asphaltum No. 1 will match up over or right alongside a dried coat, without showing any lap whatsoever. It contains no coal tar and is practically devoid of odor of any character.

Dilute with petroleum, naphtha or turpentine. Keep brushes in water when not in use.

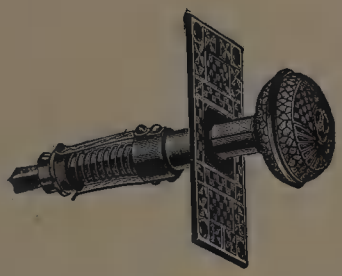
No. S-432. Asphaltum in barrels only....net, per gal., $ .50

ATLAS Car Mover (see Pusher).

ATTACHMENT Burners (see Burners).

ATTACHMENT Plugs (see Plugs).

ATTACHMENTS (see Drops, automatic).
(see Springs, burglar alarm).
(see Burners, gas lighting).

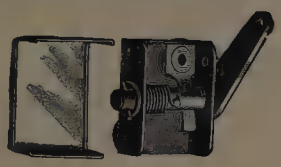


Showing Bell Pull Attachment Installed.

Bell Pull Attachment.

This is a simple and easily applied adjustable attachment, and can be fitted to any door-pull. It consists of a spring, a brass and two rubber bushings. A screw in the brass bushing, shown in the cut, holds the attachment in place. The springs in their normal position rest on the small rubber bushing, but in operation the brass bushing is drawn between them and the circuit closed. One of its great advantages is that the hole in the casing needs to be enlarged but a trifle over that made for the regular pull.

No. S-434. Attachment only.....each, $ .50



No. 70.

Edwards' Circuit Closing Attachment.

For connecting a mechanical bell-pull so as to ring an electric bell.

Pull need not be disconnected. The attachment allows both the electrical and mechanical bell to be rung.

Japanned base, nickel cover.

No. 70. Circuit closing attachment....each, $ .40



No. 1594.

Circuit Closer.

This improved circuit closer is designed for connecting a mechanical door-pull, so as to ring an electric bell located anywhere in the house. It can be attached without displacing the bell-pull already in use, and may be so arranged as to operate both the mechanical and electrical bells from the same pull.

No. 1594. Circuit closer.....each, $ .30



No. 1-206.

H.-C. Circuit Closing Attachment.

Especially adapted for telephone work in order to cut in a bell circuit when the drop falls. Special resistance to order. Quartered oak case.

No. 1-206.....80 ohms.....each, $2.00
,, 2-206.....1000 ,, ... ,, 3.00
,, 3-206.....1600 ,, ... ,, 3.50



No. 239.



No. 80.



No. 1829.



No. 86.

Gas Attachments.

For attaching electric sockets to gas fixtures.

		Std. Pkg.	Each.
No. 239.	Angle, dull brass	500	$ .04
,, 240.	,, polished	250	.04¼
,, 1289.	Straight, dull brass	500	.04
,, 1290.	,, polished	250	.04¼
,, 80.	Polished brass	100	.09
,, 86.	,, ,,	100	.07

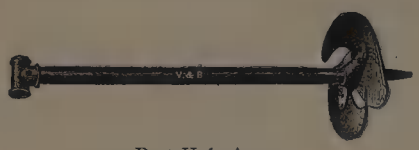


Lewis Attachment.

Lewis Socket Attachment.

Fits over the key of an ordinary key socket to enable one to turn same when it cannot be reached by hand.

No. S-435. Lewis socket attachment..each, $ .25



Post Hole Auger.

AUGER.

Post Hole Auger.

Complete with 5-foot handle.

No. 242.....12 in. diameter.....each, $5.75
,, 243.....14 ,, ,, ... ,, 6.00

AUTOMATIC Alarm (see Floats).

AUTOMATIC Burner (see B).

AUTOMATIC Keys (see K).

AUTOMOBILE Switches (see Switches, gas engine).

AXES.



Hand Axe.

Hand Axes (see Hatchets).

No. 1.....4 in. cut .....per doz., $10.50
,, 2.....4½ ,, ,, ... ,, 11.50
,, 3.....5 ,, ,, ... ,, 13.00
,, 4.....5½ ,, ,, ... ,, 14.50
,, 5.....6 ,, ,, ... ,, 16.50

Hurd's 4-lb. Lineman's Hatchet, extra heavy reënforced head. Price on application.



Lineman's Axe.

" Hub " Lineman's Axes, N. E. Pattern.

					Per Doz.
No. S-436....	3	lb. with	32-in.	handle...	$15.00
,, S-437....	3¼	,, ,,	32 ,,	,, ...	15.00
,, S-438....	3½	,, ,,	32 ,,	,, ...	15.00
,, S-439....	3¾	,, ,,	32 ,,	,, ...	15.50
,, S-440....	4	,, ,,	32 ,,	,, ...	15.50
,, S-441....	4½	,, ,,	32 ,,	,, ...	16.00
,, S-442....	5	,, ,,	32 ,,	,, ...	17.00
,, S-443....	6	,, ,,	34 ,,	,, ...	19.00



Adze.

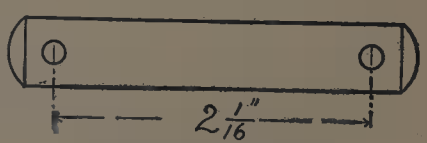
Railroad Adze.

		Net Each.
No. S-444.	6-in. cut, no handle.....	$1.75
,, S-445.	Handle, 32-in.....	.20

AXLE Bearings (see B).

AXLE Gears (see G).

AXLES, Trolley Wheel.



Standard Trolley Wheel Axle, No. S-446.

No. S-446. Regular size ½ in. diameter, 2 1/16 in. center to center of cotter pin holes, case hardened, to fit Nuttall or G. E. Harp .....each, $.12

No. S-447. Kalamazoo style, ½ in diameter, 2⅜ in. centers, case hardened .....each, .12

No. S-448. High Speed axle, ⅝ in. diameter, 2⅜ in. centers, case hardened .....each, .16

No. S-449. Special B. & N. style, ½ in. diameter, 3 11/16 in. centers, case hardened.....each, .20

Other sizes to order at prices corresponding to quantity and size.

BABBITT (see Metals).

BABY Switches (see S).

BACKS, Bracket (see Plates, bracket).

BADGES, Employees'.



No. 62.



No. 64.



No. 66.



No. 69.

Metal Breast Badges.

These badges have raised ornamental designs and can be furnished with any desired lettering in the panels or circles.

Relief work is sharp and well defined. Pins and catches are of heavy material.

Style No. 62.	Breast badge, nickel plated.....each,	$2.00
	Ditto, gold plated. ,,	2.50
Style No. 64.	Breast badge, nickel plated.....each,	2 00
	Ditto, gold plated. ,,	2.50
Style No. 66.	Breast badge, nickel plated.....each,	1.00
	Ditto, gold plated. ,,	1.50
Style No. 69.	Breast badge, nickel plated.....each,	2.00
	Ditto, gold plated. ,,	2.50



No. 431.



No. 4901.

Metal Cap Badges.

These metal cap badges will be furnished with any lettering or numbering desired.

No. 431.	Cap badges, nickel plated, $3\frac{3}{4}$ in. long .....each,	$1.00
	Ditto, gold plated.... ,,	1.50
No. 4901.	Cap badge, raised border, letters stamped in and filled with black enamel, nickel plated, 4 in. long, each,	1.25
	Ditto, gold plated.... ,,	1.75

This metal cap badge is furnished with black or other colored japanned background, raised figures; panel letters; figure and border bright polished. Supplied with embossed titles " Conductor " and " Motorman " only.

No. 1901. Cap badge, $4\frac{5}{8}$ in. long, each, $1.50



No. 1901.



No. 7001.

Enameled Cap Badges.

The Heeren patent enameled badges are made from enamel composition with letters of the same material inserted like mosaic. This is mounted on an aluminum backing, a protecting non-corrosive frame is put on, and the whole is subjected to a very high temperature and pressure, making a homogeneous structure with great wearing qualities. The figures and letters may be either black, blue, or white, as desired.

No. 7001. Heeren cap badge....each, $1.25



No. 10 Bag.



No. 10A Bag.



Western Union Tool Bag.



Canvas Tool Bag.



No. 305. No. 307. No. 309. No. 311. No. 311½.
No. 306. No. 308. No. 310.

BAGS.

Carbon Bag.

Made of heavy black leather, for convenient carrying of arc lamp carbons. Complete with shoulder strap.

No. 10. Carbon bag.....each, $5.00

Double Carbon Bag.

Capacity 100 carbons. Made of black or russet leather, all hand made, adjustable shoulder strap, two compartments.

No. 10A. Double carbon bag.....each, $6.50

Western Union Tool Bag.

Made of solid russet leather with flap and shoulder straps complete.

No. 10B. Lineman's tool bag.....each, $6.75

Canvas Tool Bag.

No. 393	..20 in.,	weight	3¾	lbs. ...	each, $5.00
,, 393E	..16 ,,	,,	3	,, ... ,,	4.80
,, 393A	..12 ,,	,,	2½	,, ... ,,	4.60

BALL Adjusters (see A).
BALLS, Cluster (see Clusters).
BALL Shades (see Shades and Lamps, arc).
BANDS, Pole (see Clamps).
BANNER Core Rope (see Rope).
BARBERS' Urns (see Urns).
BARN Hanger (see Suspensions).
BARRETT Jacks (see J).
BARS, Commutator (see Commutators).
BARS, Digging.

Digging Bars.

Solid steel, will cut roots and break rocks.

No. 305. Round, 1⅛ in. diameter, 8 ft. long, weighs 27 lbs. .per doz., $30.00
No. 306. Octagon, 1⅛ in. diameter, 8 ft. long, weighs 28 lbs. .per doz., 31.00

Crow and Digging Bars.

Solid steel, a very useful tool.

No. 307. Octagon, 1 in. diameter, 7 ft. long, weighs 17 lbs. .per doz., $22.40
No. 308. Octagon, 1⅛ in. diameter, 8 ft. long, weighs 28 lbs. .per doz., 34.00

Tamping and Digging Bars.

Solid steel with tamp on one end.

No. 309. Octagon, 1 in. diameter, 7 ft. long, weighs 19 lbs. .per doz., $31.00
No. 310. Octagon, 1⅛ in. diameter, 8 ft. long, weighs 30 lbs. .per doz., 37.50

Wood Handle Tamping Bar.

The iron shoe gives weight and protection at end of bar.

No. 311. Bar, with 8-ft. handle, per doz., $17.00

Slick Digging Tool.

A very useful tool for digging post holes in hard soil.

No. 311½. 8-ft. hard wood handle with steel point.....per doz., $32.00

BAR Solder (see S).

BAR Urns (see Urns).

BASES (see Fuses, Switches, Blocks, Plates, bracket, and Cut-Outs).

BASES, Miniature Lamp (see Sockets)

BASES, Switch (see Switches, snap, etc.).

BASES, Trolley.



No. 6. Standard Trolley Base.

Union Standard Trolley Bases.

No. 3901. Trolley base, without pole (No. 1).....each, $37.40

No. 3933. Trolley base, without pole (No. 3).....each, 37.40

No. 17499. Trolley base, without pole (No. 5).....each, 37.40

No. 3934. Trolley base, without pole (No. 6).....each, 37.40

No. 26101. Trolley base, without pole (No. 7) double.....each, 104.00

No. 26123. Trolley base, without pole (No. 8).....each, 74.00

No. 42628. Trolley base, without pole (No. 10) ball bearing, each, 56.00

No. 42629. Trolley base, without pole (No. 11) ball bearing, each, 50.00

No. 3800. Complete with pole, harp, wheel, etc. (Form D), mining.....each, 140.00

No. 27778. Complete with pole, harp, wheel, etc. (Form D-4), mining.....each, 140.00



No. 3. Sterling Roller Bearing Trolley Base.

Sterling Trolley Base No. 3.

Great strength, compact, turns without friction. Has a roller bearing consisting of 40 straight steel rollers $\frac{1}{4}$ x $5\frac{3}{8}$ inches set vertically, insuring smooth and easy lateral action. The turret covers the rollers, giving perfect protection from the weather. Lubricant is stored in the cylinder inside the turret. Fork shuts down over turret into a horizontal position. Length 26 inches, width 15 inches, height with pole down $6\frac{3}{4}$ inches.

No. 3. Sterling trolley base.....each, $32.00



Trimmer's Basket.

BASKET, Trimmer's.

Trimmer's Basket.

A rattan basket with divisions or compartments for holding inner globes of arc lamps.

No. 1017. Trimmer's basket...net, each, $3.50



Columbia Battery.

BATTERIES, see following headings:

Batteries, Dry.
" Ignition (see Batteries, wet).
" Storage (see Batteries, wet).
" Wet.

BATTERIES, Dry.

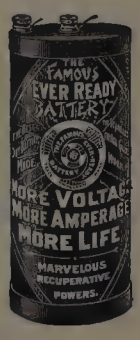
Columbia Dry Batteries.

	Size in In.	Over All.	Wt.			
No. 4	1½ x 4	1¾ x 4¾	9 oz.		each,	$ .30
" 5	2 x 5	2⅛ x 6	1⅛ lb.		"	.36
" 6*	2½ x 6	2⅝ x 7	2 lbs.		"	.51
" 6	2½ x 6	2⅝ x 7	2 "	(Ignitor Cell)	"	.51
" 7	3 x 7	3¼ x 7¾	3½ "		"	1.32
" 8	3½ x 8	3¾ x 8¾	5 "		"	1.52½

* No. 6 is the standard size.



1900 Battery.



Ever Ready Battery. Style J.

Globe Dry Battery.

No. S-450.....2½ x 6 globe battery.....each, $ .31

" 1900 " Dry Battery.

No. 1900. Standard size, 2½ x 6.....each, $ .51

Weight 2 pounds, current 16 to 18 amperes, E. M. F. 1.5 volts.

Eastern Dry Battery.

No. S-451. Standard size, 2½ x 6.....each, $ .51

Ever Ready Dry Batteries.

	Size.	Amps.			
Style K	3 x 7 in.	27 to 30		each,	$1.02
" J	2½ x 6 "	23 " 25	(standard size)	"	.51

Mesco Dry Battery.

No. 2385. Standard size, 2½ x 6 in.....each, $ .31

New Standard Dry Battery.

No. S-452. Standard size, 2½ x 6 in.....each, $ .31



Mesco Battery.

O K Dry Batteries.

Minimum voltage of all cells, 1.5 volts.

In construction and principle the O K Dry Cell differs radically from that of any other dry cell. Its construction is such that the deterioration within itself is practically eliminated.

Auto Type Square Batteries.

Type 60.....2 7/16 x 6½ in. over all.....each, $ .80
" 70.....2 15/16 x 7½ " " ".....each, 1.20

Auto Type Round Batteries.

Type L.....2⅝ x 6½ in. over all.....each, $ .70
" M.....3⅛ x 7½ " " ".....each, 1.10

Large Rectangular Type Batteries.

Type X.....3⅛ x 4⅛ x 7¼ in. over all.....each, $1.60
" Y.....4¼ x 4½ x 7 " " ".....each, 2.10
" Z.....2 1/16 x 5 11/16 x 7⅞ " " ".....each, 2.20

Round Type Batteries.

Type D.....1½ x 4 in. over all.....each, $ .40
" E.....1¾ x 4 " " ".....each, .45
" C.....2½ x 6 " " ".....each, .65
" B.....3 x 7 " " ".....each, .90

Rectangular Type Batteries.

No. 1.....1 x 1 9/16 x 3¼ in. over all.....each, $ .40
" 2.....1¼ x 1¾ x 4 " " ".....each, .45
" 3.....1½ x 2 x 4¾ " " ".....each, .50
" 4.....1¾ x 1¼ x 5⅜ " " ".....each, .55
" 5.....2 x 2½ x 6 " " ".....each, .75
" 6.....2¼ x 2¾ x 7 " " ".....each, .90



Round Type.



Rectangular Type.



R.-I. Battery.

BATTERIES, Dry (Continued).

S-X Dry Batteries.

No 6 S-X Dry battery, 2½ x 6 in , 125 per bbl.....each, $ .61

Rock Island Dry Batteries.

Rock Island batteries are hand made, have extra heavy zinc and corrugated carbon and each cell is tested four times during construction

Dry Battery.	Volts.	Amps.	No. per Bbl.	Each.
No. 6 R-I .....2½ x 6 in.	1.53 to 1.55	17–20	125	$ .51
,, 7 R-I.....3 x 7 ,,	1.53 ,, 1.57	18–22	75	1.32
,, 8 R-I.....3½ x 8 ,,	1.53 ,, 1.57	20–25	50	1.52½

BATTERIES, Ignition (see Batteries, wet),

BATTERIES, Storage (see Batteries, wet).

BATTERIES, Wet.


Carbon Cylinder Battery, No. S-453.

Carbon Cylinder Batteries.

A high-grade carbon cylinder surrounding a pencil zinc. The best known and most used battery for general house service, ringing bells, gas lighting, etc.

No. S-453. Complete cell of battery, with charge.....each, $ .54
,, S-454. Carbon cylinder only..... ,, .30
,, S-455. Glass jar only..... ,, .12
,, S-456. Zinc only..... ,, .06
,, S-457. Sal ammoniac only..... ,, .08

Edison Primary Batteries.

(Edison-Lalande.)

The electromotive force of these cells is the same for all sizes, namely .67 volt. The amount of current varies with the size. For launches running in salt water, it is advisable to use cells with porcelain jars, as the action of salt water causes the enamel on the steel jars to chip, and corrodes the steel shell.


AA.

Type AA Cell.

Launch and Traction Gas Engine Model.

Capacity, 300 ampere-hours.
Maximum current, 15½ amperes.
Continuous current, 4 amperes.
Liquid tight steel jar, 6½ x 8½ in.
Size over all, 7¼ x 10 in. Weight, 12 lbs.
Complete cell, steel jar .....each, $3.50
Complete cell, porcelain jar ..... ,, 2.90

Renewal parts:

1 copper oxide plate	$ .55	
1 zinc plate	.55	
1 can caustic soda	.28	
Bottle special battery oil	.07	
Complete renewal		1.45


BB.

Type BB Cell.

Slot Machine and Small Gas Engine Model.

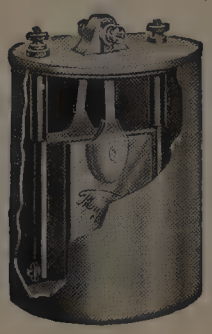
Capacity, 100 ampere-hours.
Maximum current, 7½ amperes.
Continuous current, 1½ amperes.
Porcelain jar, 4¼ x 7 in.
Size over all, 4½ x 7¾ in. Weight, 6 lbs.
Complete cell, porcelain jar .....each, $1.50

Renewal parts:

1 copper oxide plate	$ .24	
1 zinc plate	.28	
1 can caustic soda	.15	
Bottle special battery oil	.05	
Complete renewal		.72

BATTERIES, Wet.

Edison Primary Batteries (Continued).



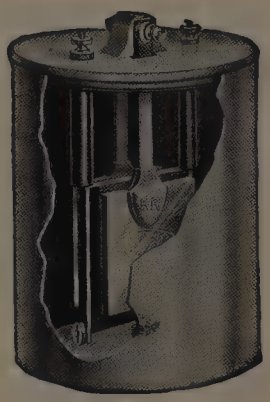
Q.

Type Q Cell.

Small Fan Motor and Gas Engine Model.

Capacity, 150 ampere-hours.
Maximum current, 9½ amperes.
Continuous current, 2½ amperes.
Porcelain jar, 5½ x 7¼ in.
Size over all, 5¾ x 8¾ in. Weight, 8 lbs.
Complete cell, porcelain jar ..... each, $2.20
Renewal parts:

2 zinc plates, 14c. each	$ .28
1 copper oxide plate	.31
1 can caustic soda	.17
Bottle special battery oil	.06
Complete renewal	.82



RR.

Type RR Cell.

Gas Engine and R. R. Crossing Signal Model.

Capacity, 300 ampere-hours.
Maximum current, 15½ amperes.
Continuous current, 4 amperes.
Porcelain jar, 7⅛ x 8¾ in.
Size over all, 7¼ x 10½ in. Weight, 13½ lbs.
Complete cell, porcelain jar ..... each, $2.90
Renewal parts:

2 zinc plates, 25c. each	$ .50
1 copper oxide plate	.55
1 can caustic soda	.28
Bottle special battery oil	.07
Complete renewal	1.40



S.

Type S Cell.

Phonograph, Fan Motor, Sewing Machine Model.

Capacity, 300 ampere-hours.
Maximum current, 26½ amperes.
Continuous current, 6 amperes.
Porcelain jar, 5½ x 11 in.
Size over all, 5¾ x 13 in. Weight, 12 lbs.
Complete cell, porcelain jar ..... each, $3.00
Renewal parts:

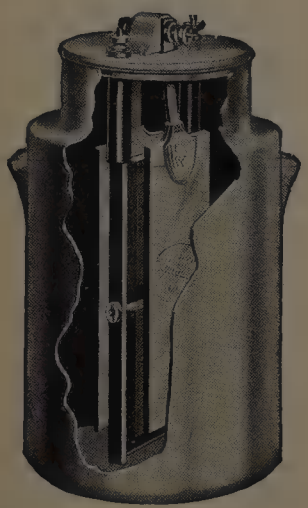
2 zinc plates, 25c. each	$ .50
2 copper oxide plates, 31c. each	.62
1 can caustic soda	.28
Bottle special battery oil	.06
Complete renewal	1.46



SS.



V.



W.



Z.

BATTERIES, Wet.

Edison Primary Batteries (Continued).

Type SS Cell.

Motor and Railroad Semaphore Signal Model.

Capacity, 300 ampere-hours.
Maximum current, 26½ amperes.
Continuous current, 6 amperes.
Porcelain jar, 6½ x 10¾ in.
Size over all, 6¾ x 12¾ in. Weight, 13½ lbs.
Complete cell, porcelain jar ..... each, $3.25

Renewal parts:

2 zinc plates, 25c. each	$ .50	
2 copper oxide plates, 31c. each	.62	
1 can caustic soda	.28	
Bottle special battery oil	.06	
Complete renewal		$1.46

Type V Cell.

Launch and Traction Gas Engine Model.

Capacity, 150 ampere-hours.
Maximum current, 9½ amperes.
Continuous current, 2½ amperes.
Liquid tight steel enameled jar, 5 x 7 in.
Size over all, 5¾ x 8 in. Weight, 6¾ lbs.
Complete cell, steel jar ..... each, $2.50
Complete cell, porcelain jar ..... ,, 2.20

Renewal parts:

1 copper oxide plate	$ .31	
1 zinc plate	.35	
1 can caustic soda	.17	
Bottle special battery oil	.06	
Complete renewal		.89

Type W Cell.

Cautery and Dental Motor Model.

Capacity, 600 ampere-hours.
Maximum current, 33 amperes
Continuous current, 7 amperes.
Porcelain jar, 7½ x 13½ in.
Size over all, 7½ x 15 in. Weight, 23 lbs.
Complete cell, porcelain jar ..... each, $4.85

Renewal parts:

2 zinc plates, 41c. each	$ .82	
2 copper oxide plates, 55c. each	1.10	
Can caustic soda	.52	
Bottle special battery oil	.08	
Complete renewal		2.52

Type Z Cell.

Small Launch and Traction Gas Engine Model.

Capacity, 100 ampere-hours.
Maximum current, 7½ amperes.
Continuous current, 1½ amperes.
Liquid tight steel enameled jar, 4¼ x 6 in.
Size over all, 4½ x 6¾ in. Weight, 4⅜ lbs.
Complete cell, steel jar ..... each, $2.00

Renewal parts:

1 copper oxide plate	$ .24	
1 zinc plate	.28	
1 can caustic soda	.15	
Bottle special battery oil	.05	
Complete renewal		.72

BATTERIES, Wet.

Edison Primary Batteries (Continued).

Permanent Parts.

No.		Each.
S-458.	Porcelain jars, type "BB"	$ .35
S-459.	,, ,, ,, "Q" and "V"	.40
S-460.	,, ,, ,, "R," "RR" and "AA"	.50
S-461.	,, ,, ,, "S"	.65
S-462.	,, ,, ,, "SS"	.90
S-463.	,, ,, ,, "W"	1.65
S-464.	Steel enameled jar, type "AA"	1.00
S-465.	,, ,, ,, ,, "V"	.80
S-466.	,, ,, ,, ,, "Z"	.60
S-467.	Porcelain covers, type "Z" and "BB"	.25
S-468.	,, ,, ,, "Q," "S," "V" and "W"	.35
S-469.	,, ,, ,, "R" and "SS"	.40
S-470.	,, ,, ,, "AA" and "RR"	.45
S-471.	Copper frames with bolts, type "Z" and "BB"	.30
S-472.	,, ,, ,, ,, ,, "Q" and "V"	.35
S-473.	,, ,, ,, ,, ,, "R," "RR," "AA"	.40
S-474.	,, ,, ,, ,, ,, "S" and "SS"	.45
S-475.	,, ,, ,, ,, ,, "W"	.45
S-476.	Copper bolts and nuts only, all sizes	.10
S-477.	Hard rubber insulators for copper frames, all sizes	.05
S-478.	Long brass bolts and nuts for zincs, all sizes	.10
S-479.	Wire connections, all sizes	.05
S-480.	Flat copper strips, straight and twisted, "W"	.10
S-481.	Soft rubber gasket rings, "V" and "Z"	.12
S-482.	,, ,, ,, ,, "AA"	.15
S-483.	,, ,, air vent nipples, "V," "Z" and "AA"	.03
		.05
S-484.	Thumb nuts, all sizes	.05
S-485.	High resistance shunts for 3, 6 and 8 cells	1.00
S-486.	Leather washers for copper frames, per doz	.10

Excello Battery.



Excello Battery.

An improved form or gravity battery capable of delivering ¼ ampere continuous discharge (six ampere-hours per day). It will, therefore, be capable of charging storage batteries whose discharge is not over one ampere for six consecutive hours or two amperes for three hours, etc.

Electromotive force, 1.1 volts.
Resistance, approximate, .55 ohm.
Normal working current, ¼ ampere.
Current on short circuit, 2 amperes.
Normal discharge rate per day, 6 ampere-hours.

No.		Each.	No.		Each.
S-487.	Price complete, except copper sulphate	$2.50	S-490.	Excello composite zinc	$ .70
S-488.	Glass jar, 6 x 12	.45	S-491.	Copper	.35
S-489.	Porous cup	.60	S-492.	Rubber cover	.50

Copper sulphate (see vitriol).
Use 8 lbs. of blue vitriol per cell.

Standard Fuller Battery.



Standard Fuller Battery.

A cell commonly used for long distance telephones, light closed circuit work, etc. 2 volts, 9 amperes, 7¾ lbs.

Use the following solution:

	In Jar.		In Cup.
Sodium bichromate	6 oz.	Mercury	1 teaspoonful
Sulphuric acid	17 ,,	Common salt	2 ,,
Soft water	56 ,,	Water	1 pint

No.			Each.
No. S-493.	Complete cell (without chemicals)	each,	$1.60
,, S-494.	Carbon with connector (4 x 9 in.)	,,	.38
,, S-495.	Zinc (1 lb. 5 oz.)	,,	.40
,, S-496.	Glass jar (6 x 8)	,,	.44
,, S-497.	Porous cup (3 x 7)	,,	.33
,, S-498.	Cover for jar	,,	.18

BATTERIES, Wet (Continued).

National Fuller Battery.



An improvement on the well-known Fuller type, the carbon element being larger and supporting the porous cup, keeping it away from the bottom of the jar and preventing crystal formation. 2 volts, 9 to 12 amperes, 12½ lbs.

Use the following solution:

Chromac	2 lbs.	in jar.
Water	½ jar	
Mercury	1 teaspoonful	in cup.
Common salt	2 ,,	
Water	1 pint	

No. S-499.	Complete cell (without chemicals)	each,	$2.00
,, S-500.	Carbon pot (7½ in. high)	,,	.96
,, S-501.	Zinc (2 lb. 1 oz.)	,,	.60
,, S-496.	Glass jar (6 x 8)	,,	.44
,, S-497.	Porous cup (3 x 7)	,,	.33
,, S-502.	Porous cup cover	,,	.15

Gonda Batteries.

These cells rank among the highest grade of open circuit batteries made. They are the original Leclanché cells in the latest and most approved forms.

No. S-503.	Gonda porous cup cell	each.	$ .70
,, S-504.	Axo cell (cup closes top of cell)	,,	.80
,, S-505.	Gonda cell (without cup)	,,	1.00
,, S-506.	Vole cell	,,	1.15
,, S-507.	Wedge cell	,,	1.15



Gonda Battery.

Parts.

No. S-508.	Gonda porous cup	each,	$ .40
,, S-509.	Axo porous cup	,,	.50
,, S-510.	Gondas (with bands, 5c. extra)	per pair,	.40
,, S-511.	Vole cup	each,	.50
,, S-512.	Glass jar	,,	.20
,, S-513.	Cover for Vole	,,	.14
,, S-514.	Cover for Wedge	,,	.14
,, S-515.	Cover for Gonda	,,	.10
,, S-516.	Carbon for Gonda	,,	.14
,, S-517.	Carbon for Wedge	,,	.10
,, S-518.	Zinc for Gonda, ⅜-in. rod	,,	.09
,, S-519.	,, ,, ,, ½ ,, ,,	,,	.14
,, S-520.	,, ,, Axo, ⅜ in. (with rubber)	,,	.10
,, S-521.	,, ,, Vole	,,	.25
,, S-522.	,, ,, Wedge	,,	.25
,, S-523.	Zinc, twin ⅜-in. rod in two pieces	,,	.10
,, S-524.	,, ,, ⅜ ,, ,, lower piece only	,,	.07
,, S-525.	Rubber bands	per pair,	.05

Gordon Batteries.



No. 2.

The electromotive force of these cells in all styles on open circuit is 1 volt. On closed circuit it varies from .6 volt to .9 volt, depending on the discharge rate.

No. 1.

Glass jar, 6 x 8 in. 300 ampere-hours.
Weight complete, 9½ lbs. Weight of recharge, 6½ lbs.

Cell, complete with charge		$3.00
Recharge complete		1.75
Zinc only	$ .45	
Copper only	1.00	
Sodium and oil	.30	

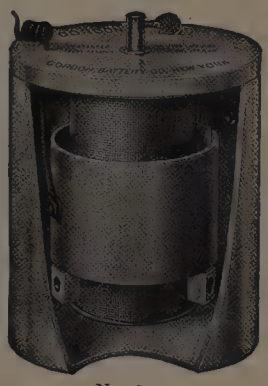
No. 2.

Glass jar, 4½ x 6 in. 100 ampere-hours.
Weight complete, 4½ lbs. Weight of recharge, 2½ lbs.

Cell complete with charge		$1.85
Recharge complete		1.00
Zinc only	$ .25	
Copper only	.50	
Sodium and oil	.25	



No. 4.



No. 6.



Type A.



Type B.

BATTERIES, Wet.

Gordon Batteries (Continued).

No. 3 (same as No. 1 except jar).
Porcelain jar, 6 x 8 in. 300 ampere-hours.
Weight complete, 14 lbs. Weight of recharge, 6½ lbs.

Cell, complete with charge	$3.25
Recharge complete	1.75
Zinc only	$ .45
Copper only	1.00
Sodium and oil	.30

No. 4 (same as No. 3 except jar).
Steel enameled jar, 4 x 6 in. 100 ampere-hours.
Weight complete, 4¼ lbs. Weight of recharge, 2½ lbs.

Cell, complete with charge	$2.25
Recharge complete	1.00
Zinc only	$ .25
Copper only	.50
Sodium and oil	.25

No. 5 (same as No. 1 except jar).
Steel enameled jar, 6 x 8 in. 300 ampere-hours.
Weight complete, 10 lbs. Weight of recharge, 6½ lbs.

Cell, complete with charge	$3.75
Recharge complete	1.75
Zinc only	$ .45
Copper only	1.00
Sodium and oil	.30

No. 6 (same as No. 2 except jar and cover).
Porcelain jar, 4½ x 6 in. 100 ampere-hours.
Weight complete, 7¾ lbs. Weight of recharge, 2½ lbs.

Cell, complete with charge	$2.00
Recharge complete	1.00
Zinc only	$ .25
Copper only	.50
Sodium and oil	.25

Type A.
Porcelain jar, 5 x 11 in. 350 ampere-hours.
Weight complete, 13½ lbs. Weight of recharge, 7 lbs.

Cell, complete with charge	$3.40
Recharge complete	1.75
Zinc only	$ .45
Copper only	1.00
Sodium and oil	.30

Type AA.
Porcelain jar, 6 x 10½ in. 350 ampere-hours.
Weight complete, 14¾ lbs. Weight of recharge, 8 lbs.

Cell, complete with charge	$3.50
Recharge complete	1.75
Zinc only	$ .45
Copper only	1.00
Sodium and oil	.30

Type B.
Porcelain jar, 7½ x 13½ in. 600 ampere-hours.
Weight, complete, 24 lbs. Weight of recharge, 10½ lbs.

Cell, complete with charge	$5.35
Recharge complete	3.00
Zinc only	$ .70
Copper only	1.75
Sodium and oil	.55

Type C.
Porcelain jar, 8½ x 14½ in. 1,000 ampere-hours.
Weight complete, 25 lbs. Weight of recharge, 12 lbs.

Cell, complete with charge	$7.25
Recharge complete	4.50
Zinc only	$ 1.20
Copper only	2.50
Sodium and oil	.80

BATTERIES, Wet.

Gordon Batteries (Continued).

Type H.

Porcelain jar, 5 x 7 in. 150 ampere-hours.
Weight complete, 8½ lbs. Weight of recharge, 3¾ lbs.

Cell complete with charge		$2.50
Recharge complete		1.25
Zinc only	$ .35	
Copper only	.65	
Sodium and oil	.25	

Type HH.

Steel enameled jar, 5 x 7 in. 150 ampere-hours.
Weight complete, 6 lbs. Weight of recharge, 3¾ lbs.

Cell complete with charge		$2.85
Recharge complete		1.25
Zinc only	$ .35	
Copper only	.65	
Sodium and oil	.25	

Permanent Parts of Gordon Batteries.

No. S-527.	Jar, glass, No. 1, 6 x 8 in.	$ .45
,, S-528.	,, ,, ,, 2, 4½ x 6 in.	.30
,, S-529.	,, steel enamel, No. 5, 6 x 8 in.	1.10
,, S-530.	,, ,, ,, ,, 4, 4¼ x 6 in.	.65
,, S-531.	,, ,, ,, "HH," 5 x 7 in.	.85
,, S-532.	,, porcelain, No. 3, 6 x 8 in.	.65
,, S-533.	,, ,, ,, 6, 4½ x 6 in.	.40
,, S-534.	,, ,, "A," 5 x 11 in.	.80
,, S-535.	,, ,, "AA," 6 x 10½ in.	.90
,, S-536.	,, ,, "B," 7½ x 13½ in.	2.00
,, S-537.	,, ,, "C," 8½ x 14½ in.	2.50
,, S-538.	,, ,, "H," 5½ x 7 in.	.50
,, S-539.	Covers, tin, for No. 1 cell	.25
,, S-540.	,, fibre, ,, ,, 5 ,,	.50
,, S-541.	,, ,, ,, ,, 4 ,,	.30
,, S-542.	,, ,, ,, ,, 2 ,,	.25
,, S-543.	,, ,, ,, "HH" ,,	.40
,, S-544.	,, porcelain, ,, No. 3 ,,	.50
,, S-545.	,, ,, ,, ,, 6 ,,	.30
,, S-546.	,, ,, ,, "A" ,,	.50
,, S-547.	,, ,, ,, "AA" ,,	.50
,, S-548.	,, ,, ,, "B" ,,	.50
,, S-549.	,, ,, ,, "C" ,,	.50
,, S-550.	,, ,, ,, "H" ,,	.40
,, S-551.	Bushings, porcelain, for No. 1 cell	.05
,, S-552.	Washers, porcelain, inter-locking, for No. 1 cell	.20
,, S-553.	Connectors with thumbscrew, for No. 1, 3, 5, "A," "AA," "B," "C," "H," or "HH"	.35
,, S-554.	Connectors with thumbscrew, for No. 2, 4 or 6	.30

Gravity Batteries.

The electromotive force of the gravity battery is approximately 1 volt, the current is a small fraction of an ampere depending upon the resistance of the circuit.

No. S-555.	6 x 8 size, complete except vitriol	each,	$1.20
,, S-496.	6 x 8 jar only	,,	.44
,, S-556.	6 x 8 zinc only	,,	.70
,, S-557.	6 x 8 copper only	,,	.20
,, S-558.	5 x 7 size, complete except vitriol	,,	1.10
,, S-559.	5 x 7 jar only	,,	.44
,, S-560.	5 x 7 zinc only	,,	.60
,, S-561.	5 x 7 copper only	,,	.20
,, S-562.	Vitriol	per lb.,	.16

About 3 lbs. vitriol required for 6 x 8 cell.
,, 2 ,, ,, ,, ,, 5 x 7 ,,



Gravity Battery.

Leclanche Batteries.

(See Batteries, carbon cylinder.)



Samson No. 1.

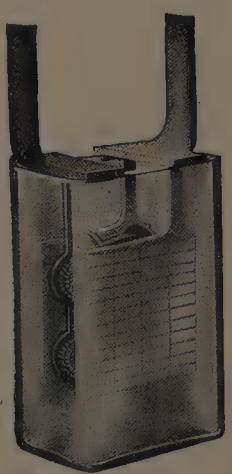

Samson No. 2.



Samson No. 3.



Samson Semi-Dry.


Storage Battery.

BATTERIES, Wet (Continued).

Samson Batteries.

No. 1.

Size, 7⅛ x 4 x 4 inches.

Electromotive force, 1.44 volts. Current, 10 amperes.

No.	In Quantities of	1-5	6-24	25-49	50-99
S-563.	Complete ..... each,	$1.40	$1.30	$1.26	$1.20
S-564.	Carbon vase ..... ,,	.90	.86	.80	.75
S-565.	Cylindrical zinc ..... ,,	.26	.24	.22	.22
S-566.	Glass jars ..... ,,	.18	.18	.16	
S-567.	Rubber cover ..... ,,	.12	.12	.12	

No. 2.

Size, 8 x 4½ x 4½ inches.

Electromotive force, 1.47 volts. Current, 12 to 16 amperes.

No.	In Quantities of	1-5	6-24	25-49	50-99
S-568.	Complete ..... each	$1.60	$1.50	$1.46	$1.40
S-569.	Complete with 16 oz. zinc . ,,	1.90	1.80	1.76	1.70
S-570.	Carbon vase ..... ,,	1.10	1.06	1.00	.95
S-571.	Cylindrical zinc ..... ,,	.28	.26	.24	.24
S-572.	Railroad zinc 16 oz..... ,,	.56	.51	.46	.46
S-573.	Glass jars ..... ,,	.20	.20	.18	
S-574.	Rubber cover ..... ,,	.12	.12	.12	

No. 3.

Size, 7 x 4¾ inches.

No. S-575.	Complete ..... each,	$2.00
,, S-576.	Carbon vase ..... ,,	1.35
,, S-577.	Cylindrical zinc ..... ,,	.52
,, S-578.	Jar only ..... ,,	.40
,, S-579.	Sal ammoniac charge ..... ,,	.20
,, S-580.	Rubber cover ..... ,,	.20

Semi-Dry.

Size, 4⅝ x 7⅝ inches.

No. S-581.	Complete ..... each,	$2.50
,, S-582.	Carbon vase ..... ,,	1.35
,, S-583.	Cylindrical zinc ..... ,,	.52
,, S-584.	Jar only ..... ,,	.70
,, S-585.	Sal ammoniac charge ..... ,,	.20
,, S-586.	Complete recharge, including wax for sealing ... ,,	2.00

Storage Batteries.

Chloride Accumulator.

The voltage of cells of all capacities is slightly above two volts on open circuit, and during discharge at the eight-hour rate varies from that point at the beginning to 1.75 volts at the end.

To determine the type of battery for use consider each cell as giving two volts, *i. e.*, for 110 volts you would require 55 cells, etc.

Then find the type of cell corresponding to the number of amperes you will require during the eight hours of discharge.

If you wish a continuous discharge for sixteen hours instead of eight, choose a type of cell giving twice as many amperes as you need, etc. Prices without electrolyte:

Type.	Size of Plates.	No. of Plates.	Discharge for 8 Hrs.	Wt. Complete in Rubber Jar.	With Glass Jar.	With Rubber Jar.
BT	3 x 4	2	¾ amps.	2½ lbs.	$1.15	$1.55
CT	5 x 5	2	1½ ,,	5¾ ,,	2.10	2.85
PT	8¾ x 5	2	3 ,,	9¾ ,,	3.20	4.35
ET	7¾ x 7¾	2	4½ ,,	14¼ ,,	4.50	5.80
B-3	3 x 3	3	⅝ ,,	3½ ,,	1.65	2.15
C-3	4⅜ x 4	3	1¼ ,,	6½ ,,	2.40	3.20
C-5	4⅜ x 4	5	2½ ,,	10 ,,	3.75	4.65
C-7	4⅜ x 4	7	3¾ ,,	13 ,,	5.30	6.40

BATTERIES, Wet.

Storage Batteries (Continued).

Chloride Accumulator.

Type.	Size of Plates. Inches.	No. of Plates.	Discharge for 8 Hrs.	Wt. Complete in Rubber Jar.	With Glass Jar.	With Rubber Jar.
D-3	6 x 6	3	2½ amps.	12 lbs.	$3.90	$4.70
D-5	6 x 6	5	5 ,,	18½ ,,	5.80	6.70
D-7	6 x 6	7	7½ ,,	24½ ,,	7.95	8.65
D-9	6 x 6	9	10 ,,	32½ ,,	10.00	11.20
D-11	6 x 6	11	12½ ,,	39¾ ,,	11.75	13.35
D-13	6 x 6	13	15 ,,	47¼ ,,	14.25	15.95
E-5	7¾ x 7¾	5	10 ,,	29½ ,,	9.45	11.15
E-7	7¾ x 7¾	7	15 ,,	40½ ,,	13.10	15.00
E-9	7¾ x 7¾	9	20 ,,	52 ,,	16.75	19.00
E-11	7¾ x 7¾	11	25 ,,	63 ,,	20.50	23.80
E-13	7¾ x 7¾	13	30 ,,	77 ,,	24.80	28.00
E-15	7¾ x 7¾	15	35 ,,	87 ,,	28.30	31.85

Prices on larger sizes on application. Packing charged at cost.

Electrolyte per 100 pounds, $3.00. Carboys (returnable), $1.50 each.

Prices on portable batteries of 2 to 10 volts (1 to 5 cells) in hard wood carrying cases, also on automobile cells, etc., on application.

Exide Sparking Batteries.

The elements of the "Exide" Sparking Battery are of the standard "Exide" type. The terminals are of an improved form, insuring strength and durability. Great care has been exercised in the method of assembling, and the complete battery has been especially designed to meet the ignition requirements of the gasoline automobile engine.

With each battery is furnished instructions covering care and operation.



Exide Sparking Battery.

No.	No. Cells in Case.	Type and No. of Plates	Amp. Hr. Cap. at Service Rate	Charging Current Rate in Amps.	Outside Dimensions of Case Length, Inches.	Width, Inches.	Height, Inches.	Wt. Complete in Case, Lbs.	Price. Compl. Chgd. (Hdls. not Incl.)
51	1	S-5	34	4	3⅞	6⅜	9⅛	8½	$7.75
52	2	S-5			5 11/16	6⅜	9⅛	17	14.00
53	3	S-5			7½	6⅜	9⅛	25½	20.25
54	4	S-5			9 5/16	6⅜	9⅛	34	26.50
71	1	S-7	51	6	4 11/16	6⅜	9⅛	12	9.25
72	2	S-7			7 5/16	6⅜	9⅛	24	17.25
73	3	S-7			9 15/16	6⅜	9⅛	35¾	25.25
74	4	S-7			12 9/16	6⅜	9⅛	47½	33.25
91	1	S-9	68	8	5 5/16	6⅜	9⅛	15½	11.50
92	2	S-9			8 9/16	6⅜	9⅛	30¾	21.00
93	3	S-9			11 13/16	6⅜	9⅛	46	30.50
94	4	S-9			15 1/16	6⅜	9⅛	61	40.00
111	1	S-11	85	10	6 5/16	6⅜	9⅛	19	13.75
112	2	S-11			10 9/16	6⅜	9⅛	37½	24.75
113	3	S-11			14 13/16	6⅜	9⅛	55½	35.75
114	4	S-11			19 1/16	6⅜	9⅛	74	46.75

Where handles are used, add ½ inch to width of case.



Witherbee Battery.

Witherbee Storage Batteries.

No.	Length, Inches.	Width, Inches.	Height, Inches.	Volts.	Amp. Hs.	Weight.	Price.
44	7⅜	3½	7¾	4	40	10 lbs.	$13.50
46	7⅜	4⅝	7¾	6	40	16 ,,	20.00
48	7⅜	5¾	7¾	8	40	22 ,,	26.00
54	6¼	4⅝	6½	4	50	14 ,,	16.00
56	6¼	6⅜	6½	6	50	18 ,,	25.00
64	7⅜	4⅞	7¾	4	60	18 ,,	20.00
64L	6½	4⅝	9	4	60	18 ,,	20.00
66	7⅜	6⅞	7¾	6	60	24 ,,	29.00
84	7⅜	6⅝	7¾	4	80	22 ,,	25.00
86	7⅜	9¼	7¾	6	80	34 ,,	36.00



Cell-like Strip with Wood Separator.



Positive Plate built up of Strips above.



Universal Battery, Complete.



Type Y-5.— Three Cells. Wood Case. No. 530.

BATTERIES, Wet (Continued).

Universal Storage Batteries.

This battery is constructed of the best materials obtainable. It has actually been tested up to 200 discharges. As it is guaranteed to give 1,000 miles on one discharge, this means a total mileage of 200,000, which is greater than the life of any car.

Owing to the peculiar construction of the positive plate it is absolutely impossible for the active material to fall out. Each plate is built up of a series of small cell-like strips separated by a porous strip of " end " wood between each strip, in such a manner that the active material cannot get out except through the wood, which is impossible.

When these strips are assembled one on top of another and formed into a solid plate, it gives a positive plate with both surfaces presenting a wall of lead and wood only without any active material in sight. At the same time this active material is easily accessible (through the porous wood strip) to the action of the electrolyte.

The standard size of battery in common use is the 6-volt, 60-ampere-hour size for touring cars and the 6-volt, 40-ampere-hour size for runabouts.

	V.	Amp. Hrs.	Width.	Lgth.	Ht.	Weight.	Price.
No. S-587	4	20	2¾	6⅛	7⅝	11 lbs.	$10.00
,, S-588	4	40	4	7⅛	9¼	23 ,,	16.00
,, S-589	4	60	3 9/16	9¼	8¾	25 ,,	20.00
,, S-590	4	80	6	7⅛	9¼	35 ,,	22.00
,, S-591	6	20	3½	6¼	7⅝	12 ,,	12.00
,, S-592	6	40	4⅜	7⅛	9¼	23½ ,,	20.00
,, S-593	6	60	5¼	7⅛	8½	29½ ,,	28.00
,, S-594	6	80	8⅞	7⅛	9¼	52 ,,	30.00
,, S-595	8	20	4½	6⅛	7⅝	19 ,,	14.00
,, S-596	8	40	8⅞	7⅛	9¼	40 ,,	27.00
,, S-597	8	60	7½	9¼	8¾	46 ,,	36.00
,, S-598	8	80	12	7⅛	9¼	65 ,,	40.00

To all heights of batteries above given, add ⅛ inch for handle.

To all lengths, add 1 inch for terminals.

Universal Storage Battery for Lighting Automobiles.

We are prepared to furnish this battery in special form for lighting the five lights of an automobile, including the two search-lights, two side-lights and tail-light. Prices on application.

National Storage Batteries.

Hard rubber jars furnished in wood case with strap handle.

No.	No. of Cells.	Volt-age.	Type.	Amp. Hr. Cap.	Width. In.	Length. In.	Height. In.	Wt. in Pounds.	Price.
310	1	2	Y-3	20	5¼	3¼	9½	5¼	$7.00
320	2	4	Y-3	20	5¼	4⅝	9½	10	11.50
330	3	6	Y-3	20	5¼	5⅞	9½	14¾	15.50
340	4	8	Y-3	20	5¼	7¼	9½	19½	20.00
350	5	10	Y-3	20	5¼	8½	9½	24¼	23.50
510	1	2	Y-5	40	5¼	4¼	9½	10½	8.50
520	2	4	Y-5	40	5¼	6⅜	9½	17¼	15.25
530	3	6	Y-5	40	5¼	8¾	9½	24	20.75
540	4	8	Y-5	40	5¼	11	9½	30¾	26.25
550	5	10	Y-5	40	5¼	13½	9½	37½	31.25
710	1	2	Y-7	60	5¼	4⅞	9½	12½	10.00
720	2	4	Y-7	60	5¼	8	9½	23	19.00
730	3	6	Y-7	60	5¼	11	9½	33½	25.25
740	4	8	Y-7	60	5¼	14¼	9½	44	32.25
750	5	10	Y-7	60	5¼	17⅝	9½	54½	38.50

Packing charges will be made at cost in all cases.

BATTERY Charging Rheostats (see Rheostats).

BATTERY, Medical (see Coils, medical).

BATTERY Syringe (see S).

BEAD Chain (see C).

BEARINGS, Railway Motor.

G. E. Axle Bearing Linings.

Brass.

No. 15451.	Type	W P	50,	3⅜	in., split brass	$13.50
,, 16666.	,,	W P	50,	3¾	,, ,, ,,	11.00
,, 17229.	,,	G E	800,	3¾	,, ,, ,,	7.75
,, 33751.	,,	G E	800,	4	,, ,, ,,	12.00
,, 14724.	,,	G E	1000A,	3¾	,, ,, ,,	14.75
,, 14726.	,,	G E	1000A,	4	,, ,, ,,	15.25
,, 33605.	,,	G E	1000A,	4¼	,, ,, ,,	14.25
,, 33425.	,,	G E	1000A,	4½	,, ,, ,,	11.75
,, 18012.	,,	G E	1200B,	4	,, ,, ,,	17.00
,, 18102.	,,	G E	2000A,	4½	,, ,, ,,	19.25
,, 33424.	,,	G E	51B,	5	,, ,, ,,	17.50
,, 14724.	,,	G E	52A,	3¾	,, ,, ,,	14.75
,, 14726.	,,	G E	52A,	4	,, ,, ,,	15.25
,, 33425.	,,	G E	52A,	4½	,, ,, ,,	11.75
,, 52527.	,,	G E	53A,	3¾	,, ,, ,,	13.00
,, 52528.	,,	G E	53A,	4	,, ,, ,,	12.35
,, 33606.	,,	G E	53A,	4¼	,, ,, ,,	12.50
,, 14724.	,,	G E	54A,	3¾	,, ,, ,,	14.75
,, 14726.	,,	G E	54A,	4	,, ,, ,,	15.25
,, 33425.	,,	G E	54A,	4½	,, ,, ,,	11.75
,, 50507.	,,	G E	55A,	4½	,, ,, ,,	29.00
,, 50508.	,,	G E	55A,	5	,, ,, ,,	25.50
,, 50509.	,,	G E	55A,	5¼	,, ,, ,,	23.00
,, 33426.	,,	G E	55H,	6	,, ,, ,,	43.75
,, 50222.	,,	G E	57A,	3¾	,, ,, ,,	22.00
,, 50221.	,,	G E	57A,	4	,, ,, ,,	20.50
,, 50220.	,,	G E	57A,	4¼	,, ,, ,,	19.00
,, 50219.	,,	G E	57A,	4½	,, ,, ,,	17.00
,, 33427.	,,	G E	57H,	5	,, ,, ,,	24.00
,, 33428.	,,	G E	57H,	5¼	,, ,, ,,	22.25
,, 14724.	,,	G E	58A,	3¾	,, ,, ,,	14.75
,, 14726.	,,	G E	58A,	4	,, ,, ,,	15.25
,, 33605.	,,	G E	58A,	4¼	,, ,, ,,	14.25
,, 14724.	,,	G E	60A,	3¾	,, ,, ,,	14.75
,, 14726.	,,	G E	60A,	4	,, ,, ,,	15.25
,, 52528.	,,	G E	61A&B,	4	,, ,, ,,	12.35
,, 33606.	,,	G E	61A&B,	4¼	,, ,, ,,	12.50
,, 33430.	,,	G E	61A&B,	4½	,, ,, ,,	13.50
,, 14724.	,,	G E	62A,	3¾	,, ,, ,,	14.75
,, 14726.	,,	G E	62A,	4	,, ,, ,,	15.25
,, 33432.	,,	G E	64A,	4½	,, ,, ,,	26.00
,, 33608.	,,	G E	65B,	7	,, ,, ,,	51.00
,, 33433.	,,	G E	65B,	8	,, ,, ,,	54.00
,, 24568.	,,	G E	66A,	5	,, ,, ,,	25.00
,, 24570.	,,	G E	66A,	5¼	,, ,, ,,	24.00
,, 33609.	,,	G E	66A,	5¼	,, ,, ,,	24.00
,, 33464.	,,	G E	66B,	5¼	,, ,, ,,	46.00
,, 33465.	,,	G E	66B,	6¼	,, ,, ,,	35.00
,, 24572.	,,	G E	66B,	6	,, ,, ,,	38.50
,, 33610.	,,	G E	66B,	6	,, ,, ,,	38.50
,, 24574.	,,	G E	66B,	6½	,, ,, ,,	34.50
,, 55842.	,,	G E	67A,	4½	,, ,, ,,	15.00
,, 27927.	,,	G E	69B,	6½	,, ,, ,,	38.00
,, 33434.	,,	G E	69B,	6½	,, ,, ,,	38.00
,, 32354.	,,	G E	73C,	5	,, ,, ,,	31.00
,, 32355.	,,	G E	73C,	5¼	,, ,, ,,	28.50
,, 32356.	,,	G E	73C,	5½	,, ,, ,,	26.00
,, 32357.	,,	G E	73E,	5	,, ,, ,,	26.00
,, 32358.	,,	G E	73E,	5¼	,, ,, ,,	24.00
,, 38699.	,,	G E	80A,	5	,, ,, ,,	15.25



Bearing.

BEARINGS, Railway Motor.

G. E. Axle Bearing Linings (Continued).



Bearing.

Iron Babbitted.

No. 14721.	Type	G E	1000A,	3¾	in., split babbitted	$9.25
,, 14723.	,,	G E	1000A,	4	,, ,, ,,	9.80
,, 14721.	,,	G E	52A,	3¾	,, ,, ,,	9.25
,, 14723.	,,	G E	52A,	4	,, ,, ,,	9.80
,, 14721.	,,	G E	54A,	3¾	,, ,, ,,	9.25
,, 14723.	,,	G E	54A,	4	,, ,, ,,	9.80
,, 14721.	,,	G E	58A,	3¾	,, ,, ,,	9.25
,, 14723.	,,	G E	58A,	4	,, ,, ,,	9.80
,, 14721.	,,	G E	60A,	3¾	,, ,, ,,	9.25
,, 14723.	,,	G E	60A,	4	,, ,, ,,	9.80
,, 14721.	,,	G E	62A,	3¾	,, ,, ,,	9.25
,, 14723.	,,	G E	62A,	4	,, ,, ,,	9.80
,, 33431.	,,	G E	64A,	4	,, ,, ,,	17.75
,, 55840.	,,	G E	67A,	3¾	,, ,, ,,	10.50
,, 55839.	,,	G E	67A,	4	,, ,, ,,	10.00
,, 55838.	,,	G E	67A,	4¼	,, ,, ,,	9.00
,, 38648.	,,	G E	77A,	3¾	,, ,, ,,	10.00
,, 38650.	,,	G E	77A,	4	,, ,, ,,	10.00
,, 38649.	,,	G E	80A,	3¾	,, ,, ,,	16.50
,, 38696.	,,	G E	80A,	4	,, ,, ,,	16.50
,, 38697.	,,	G E	80A,	4¼	,, ,, ,,	16.50
,, 38698.	,,	G E	80A,	4½	,, ,, ,,	16.50
,, 38554.	,,	G E	80C,	5	,, ,, ,,	19.25

Lumen.

No. 24567.	Type	G E	66A,	5	in., split lumen	$21.25
,, 24569.	,,	G E	66A,	5¼	,, ,, ,,	20.75
,, 24571.	,,	G E	66B,	6	,, ,, ,,	32.00
,, 24573.	,,	G E	66B,	6½	,, ,, ,,	21.75
,, 33435.	,,	G E	70A,	4	,, ,, ,,	17.50
,, 33436.	,,	G E	70A,	4½	,, ,, ,,	15.00
,, 33437.	,,	G E	70A,	5	,, ,, ,,	11.50
,, 37573.	,,	G E	74A,	4½	,, ,, ,,	25.50
,, 37574.	,,	G E	74A,	4½	,, ,, ,,	26.00
,, 37575.	,,	G E	74A,	5	,, ,, ,,	21.00
,, 37576.	,,	G E	74A,	5	,, ,, ,,	22.00
,, 33438.	,,	G E	74A,	5¼	,, ,, ,,	19.00
,, 37577.	,,	G E	74A,	5¼	,, ,, ,,	20.00
,, 33439.	,,	G E	74A,	5½	,, ,, ,,	17.00
,, 37578.	,,	G E	74A,	5½	,, ,, ,,	18.00

Westinghouse Axle Bearing Linings.

Brass Bearings.

Prices furnished on application.

Babbitted Bearings.

No. 1045.	Westinghouse,	3,	3¾ to 4 in. bore	$12.50
,, 926.	,,	12,	3¾ ,, 4 ,, ,,	7.85
,, 926.	,,	12-A,	3¾ ,, 4 ,, ,,	7.85
,, 7469.	,,	38-B,	3¾ ,, 4 ,, ,,	8.00
,, 16217.	,,	49,	3¾ ,, 4 ,, ,,	8.20
,, 25776.	,,	50-E,	R. hand, 6 in. bore	25.00
,, 25777.			L. hand, 6 ,, ,,	25.00
,, 16284.	Westinghouse,		3¾ to 4½ in. bore	13.25
,, 24185.	,,	68-C,	3¾ ,, 4½ ,, ,,	7.75
,, 24185.	,,	69,	3¾ ,, 4½ ,, ,,	7.75
,, 24573.	,,	76,	3¾ ,, 5 ,, ,,	21.00
,, 41252.	,,	85,	3¾ ,, 5 ,, ,,	22.00
,, 41253.	,,	85,	3¾ ,, 5 ,, ,,	22.00
,, 55497.	,,	93-A,	P. E. 4 ,, ,,	19.00
,, 55498.			C. E. 4 ,, ,,	19.00
,, 55499.	Westinghouse,	93-A,	P. E. 4½ ,, ,,	20.00
,, 55500.			C. E. 4½ ,, ,,	20.00
,, 55501.	Westinghouse,	93-A,	P. E. 5 ,, ,,	21.00
,, 55502.			C. E. 5 ,, ,,	21.00
,, 55503.	Westinghouse,	93-A,	P. E. 5½ ,, ,,	22.00
,, 55504.			C. E. 5½ ,, ,,	22.00

BEARINGS, Railway Motor.

Westinghouse Axle Bearing Linings (Continued).

Babbitted Bearings (Continued).

No. 58997.	Westinghouse 101-B,	C. E. 4¼ in. bore	$13.50
,, 58998.		P. E. 4¼ ,, ,,	13.50
,, 59034.	Westinghouse 101-B,	C. E. 4½ ,, ,,	15.75
,, 59035.		P. E. 4½ ,, ,,	15.75
,, 58999.	Westinghouse 101-B,	C. E. 4 ,, ,, 8⅞ in. long	14.75
,, 59000.		P. E. 4 ,, ,, 8⅞ ,, ,,	14.75
,, 59005.	Westinghouse 101-B,	C. E. 5 ,, ,, 8 ,, ,,	10.00
,, 59006.		P. E. 5 ,, ,, 8 ,, ,,	10.00
,, 71804.	Westinghouse 112,	C. E. 4 ,, ,,	22.00
,, 71805.		P. E. 4 ,, ,,	22.00
,, 68482.		C. E. 5 ,, ,,	24.00
,, 69784.		P. E. 5 ,, ,,	24.00

G. E. Armature Bearing Linings, Pinion End.

Split Brass.

No. 15996.	Type W P 50	split brass	$2.50
,, 17558.	,, G E 800	,, ,,	7.50
,, 14727.	,, G E 1000A	,, ,,	12.80
,, 18132.	,, G E 2000A	,, ,,	15.50

Split Babbitt.



Bearing.

No. 17095.	Type G E 800	split babbitt	$4.40
,, 14728.	,, G E 1000A	,, ,,	8.00
,, 18009.	,, G E 1200B	,, ,,	7.75
,, 14582.	,, G E 52A	,, ,,	6.00
,, 14582.	,, G E 54A	,, ,,	6.00
,, 37893.	,, G E 62A	,, ,,	7.50

Solid Brass.

No. 50511.	Type G E 55A	solid brass	$18.50
,, 50511.	,, G E 55H	,, ,,	18.50
,, 50417.	,, G E 58A	,, ,,	16.00
,, 33417.	,, G E 65B	,, ,,	27.25
,, 24576.	,, G E 66A	,, ,,	19.25
,, 24576.	,, G E 66B	,, ,,	19.25
,, 32360.	,, G E 73C	,, ,,	18.00
,, 32360.	,, G E 73E	,, ,,	18.00

Solid Babbitt.

No. 33411.	Type G E 51B	solid babbitt	$11.00
,, 50224.	,, G E 57A	,, ,,	10.25
,, 50224.	,, G E 57H	,, ,,	10.25
,, 50415.	,, G E 58A	,, ,,	8.75
,, 52269.	,, G E 60A	,, ,,	7.50
,, 55844.	,, G E 67A	,, ,,	7.00
,, 38693.	,, G E 77A	,, ,,	8.25

Split Brass and Babbitt.

No. 38695.	Type G E 80A	split brass and babbitt	$18.25
,, 38695.	,, G E 80C	,, ,, ,, ,,	18.25

Solid Brass and Babbitt.

No. 52530.	Type G E 53A	solid brass and babbitt	$11.25
,, 33413.	,, G E 61A & B	,, ,, ,, ,,	10.75
,, 33415.	,, G E 64A	,, ,, ,, ,,	13.50
,, 33419.	,, G E 69B	,, ,, ,, ,,	19.25
,, 33421.	,, G E 70A	,, ,, ,, ,,	11.00
,, 33423.	,, G E 74A	,, ,, ,, ,,	12.50

G. E. Armature Bearing Linings, Commutator End.

Split Brass.

No. 15453.	Type W P 50	split brass	$1.25

Solid Brass.

No. 17559.	Type G E 800	solid brass	$6.00
,, 14730.	,, G E 1000A	,, ,,	9.00

BEARINGS, Railway Motor.

G. E. Armature Bearing Linings, Commutator End (Continued).

Solid Brass.

No. 18131.	Type G E 2000A	solid brass	$10.25
,, 50510.	,, G E 55A	,, ,,	13.75
,, 50510.	,, G E 55H	,, ,,	13.75
,, 50416.	,, G E 58A	,, ,,	12.00
,, 33416.	,, G E 65B	,, ,,	18.25
,, 24575.	,, G E 66A	,, ,,	13.25
,, 24575.	,, G E 66B	,, ,,	13.25
,, 32359.	,, G E 73C	,, ,,	13.50



Bearing.

Solid Babbitt.

No. 17096.	Type G E 800	solid babbitt	$3.60
,, 14729.	,, G E 1000A	,, ,,	6.25
,, 18010.	,, G E 1200B	,, ,,	6.75
,, 33410.	,, G E 51B	,, ,,	14.50
,, 14581.	,, G E 52A	,, ,,	4.50
,, 14581.	,, G E 54A	,, ,,	4.50
,, 50223.	,, G E 57A	,, ,,	9.25
,, 50223.	,, G E 57H	,, ,,	9.25
,, 50414.	,, G E 58A	,, ,,	7.00
,, 52268.	,, G E 60A	,, ,,	6.25
,, 37892.	,, G E 62A	,, ,,	6.25
,, 55843.	,, G E 67A	,, ,,	5.00
,, 38692.	,, G E 77A	,, ,,	6.75

Solid Brass and Babbitt.

No. 52529.	Type G E 53A	solid brass and babbitt	$7.50
,, 33412.	,, G E 61A & B	,, ,, ,, ,,	8.75
,, 33414.	,, G E 64A	,, ,, ,, ,,	11.50
,, 33418.	,, G E 69B	,, ,, ,, ,,	12.25
,, 33420.	,, G E 70A	,, ,, ,, ,,	8.00
,, 32359.	,, G E 73E	,, ,, ,, ,,	13.50
,, 33422.	,, G E 74A	,, ,, ,, ,,	10.00
,, 38694.	,, G E 80A	,, ,, ,, ,,	12.75
,, 38694.	,, G E 80C	,, ,, ,, ,,	12.75

Westinghouse Armature Bearing Linings, Pinion End.

Babbitted Bearings.

No. 7062.	West. 3	solid	$5.00
,, 924.	,, 12	,,	4.75
,, 2510.	,, 12A	,,	5.10
,, 3865.	,, 38B	,,	4.50
,, 8906.	,, 49	split	6.00
,, 25784.	,, 50E	,,	23.00
,, 16283.	,, 56	,,	10.00
,, 24452.	,, 68C	,,	4.25
,, 24189.	,, 69	,,	4.25
,, 24577.	,, 76	,,	9.50
,, 41255.	,, 85	,,	11.50
,, 55432.	,, 93A	solid	8.25
,, 45196.	,, 101B	,,	9.00
,, 55432.	,, 112	,,	8.25

Westinghouse Armature Bearing Linings, Commutator End.

Babbitted Bearings.

No. 1039.	West. 3	solid	$4.50
,, 22029.	,, 12	,,	3.20
,, 2510.	,, 12A	,,	5.10
,, 3865.	,, 38B	,,	4.50
,, 7468.	,, 49	,,	5.00
,, 25781.	,, 50E	split	16.00
,, 16282.	,, 56	solid	7.30
,, 24451.	,, 68C	,,	5.00
,, 24188.	,, 69	,,	5.00
,, 24516.	,, 76	,,	9.00
,, 41254.	,, 85	,,	10.00
,, 55431.	,, 93A	,,	7.00
,, 45195.	,, 101B	,,	8.00
,, 55431.	,, 112	,,	7.00

BEARINGS, Railway Motor (Continued).

G. E. Bearing Shells Only.

Armature Bearing Shells.				Gray Iron.	Mall. Iron.
G. E.	52	shells, comm.	end	$1.54	$1.70
,,	52	,, pinion	,,	1.80	2.18
,,	57	,, comm.	,,	1.74	2.36
,,	57	,, pinion	,,	2.30	2.92
,,	58	,, comm.	,,	1.70	2.02
,,	58	,, pinion	,,	2.20	2.68
,,	67	,, comm.	,,	1.34	1.78
,,	67	,, pinion	,,	2.00	2.36
,,	67	,, ,,	,, split	2.50	2.60
,,	800	,, comm.	,,	1.10	1.30
,,	800	,, pinion	,,	1.20	1.70
,,	1000	,, comm.	,,	1.54	1.78
,,	1000	,, pinion	,,	1.90	2.26
,,	57	,, ,,	,, split	2.70	2.80

Axle Bearing Shells.				Gray Iron.	Mall. Iron.
G. E.	52	shells, $3\frac{3}{4}$	in. end	$2.00	$2.36
,,	52	,, 4	,, ,,	1.80	2.10
,,	57	,, 4	,, ,,	2.30	2.78
,,	57	,, $4\frac{1}{4}$	,, ,,	2.25	2.73
,,	57	,, $4\frac{1}{2}$	,, ,,	2.20	2.68
,,	58	,, $3\frac{3}{4}$	,, ,,	2.00	2.36
,,	58	,, 4	,, ,,	1.80	2.10
,,	67	,, 4	,, ,,	1.80	2.30
,,	67	,, $4\frac{1}{4}$	,, ,,	2.00	2.50
,,	67	,, $4\frac{1}{2}$	,, ,,	2.00	2.60
,,	70	,, 4	,, ,,	5.20	5.90
,,	1000	,, $3\frac{3}{4}$	,, ,,	2.00	2.36
,,	1000	,, 4	,, ,,	1.80	2.10

Westinghouse Bearing Shells Only.

Armature Bearing Shells.				Gray Iron.	Mall. Iron.
West.	3	shells, comm.	end	$1.90	$2.30
,,	3	,, pinion	,,	1.98	2.20
,,	12	,, comm.	,,	1.70	2.00
,,	12	,, pinion	,,	1.30	1.58
,,	12A	,, comm.	,,	1.80	2.00
,,	12A	,, pinion	,,	1.80	2.12
,,	38B	,, comm.	,,	1.80	2.00
,,	38B	,, pinion	,,	1.80	2.12
,,	49	,, comm.	,,	1.72	2.00
,,	49	,, pinion	,,	1.92	2.12
,,	56	,, comm.	,,	2.50	2.75
,,	56	,, pinion	,,	2.60	2.90
Lorain,	34	,, comm.	,,	2.30	2.80
,,	34	,, pinion	,,	2.50	3.24

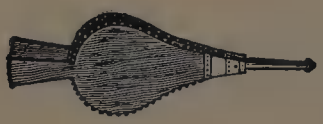
Axle Bearing Shells.				Gray Iron.	Mall. Iron.
West.	3	shells, $3\frac{3}{8}$	in. end	$2.00	$2.22
,,	3	,, $3\frac{3}{4}$	,, ,,	1.90	2.00
,,	12	,, $3\frac{3}{4}$	,, ,,	2.00	2.22
,,	12	,, 4	,, ,,	1.90	2.00
,,	12A	,, $3\frac{3}{4}$	,, ,,	2.00	2.22
,,	12A	,, 4	,, ,,	1.90	2.00
,,	38B	,, $3\frac{3}{4}$	,, ,,	2.00	2.22
,,	38B	,, 4	,, ,,	1.90	2.00
,,	49	,, $3\frac{3}{4}$	,, ,,	2.00	2.22
,,	49	,, 4	,, ,,	1.90	2.00
,,	56	,, 4	,, ,,	3.00	3.25
,,	68C	,, 4	,, ,,	2.80	3.00
,,	101	,, $4\frac{1}{2}$	,, ,,	3.00	3.25

BELL, Cord (see C).

BELLOWS (see also Dusters, universal).

Dusting Bellows.

No. S-599. 10-in. hand bellows for dusting out armatures and other electrical machinery.....each, $2.50



Hand Bellows.

BELL Pull Attachment (see A).

BELL Ringer (see Generator).

BELLS (see Gongs).

BELLS, see following headings:

Bells, Conductors' signal.
" Electro-mechanical (see Gongs).
" Enclosed.
" Extension.
" Indicating.
" Iron box.
" Lungen & Eco.
" Magneto (see Magnetos and Telephones).
" Monitor.
" Recti.
" Relay.
" Return call.
" Signal.
" Skeleton.
" Smoke.
" Testing.
" Tyrolean.
" Vigilant.
" Wood box.
" Watertight.



Conductors' Signal Bell.

BELLS, Conductors' Signal (see also Gongs).

Conductors' Signal Bells.

No. 1. 5-in. nickel plated gong on bronze frame..each, $2.50
" 2. 5-in. bronze gong on bronze frame..... " 3.50

BELLS, Electro-Mechanical (see Gongs).

BELL, Enclosed.

Faraday Enclosed Bell No. H-599.

This bell is a long step in advance over the generally used skeleton bell.

The mechanism is entirely enclosed in a metal case with gasket to exclude moisture and to prevent injury to working parts. Has patented duplex micrometer-lock adjustment contact post.

It is an ideal bell for railway signal work and is recommended by the largest railroads in the country.



No. H-599.

Diam.	Frame No.	Ohms Res.		
2½ in.	1	1.5	each,	$4.90
3 "	1	1.5	"	5.50
3½ "	1	1.5	"	5.60
4 "	1	1.5	"	5.75
5 "	2	2.1	"	7.50
6 "	2	2.1	"	8.50
7 "	3	3.	"	9.50
8 "	3	3.	"	10.50
9 "	4	5.2	"	13.50
10 "	4	5.2	"	16.50
12 "	X5	5.2	"	22.50
14 "	X5	5.2	"	27.50
15 "	X5	5.2	"	31.50
16 "	6	6.	"	35.00
18 "	6	6.	"	45.00

BELLS, Extension.



No. 882.

Regular Extension Bells.

Will operate only on telephone circuits. Used in auxiliary circuits for attracting attention to the telephone call when same is at some distance and cannot be heard.

No. 882.....	80	ohm extension bell.....each,	$2.50
,, 884.....1000	,,	,, ... ,,	4.00
,, 885.....1600	,,	,, ... ,,	4.50

Special Gong Extension Bells.

No. 886..	80	ohm extension bell, sp. gong....each,	$3.10
,, 888..1000	,,	,, ,, ,, ... ,,	4.50
,, 889..1600	,,	,, ,, ,, ... ,,	5.00

H.-C. Extension Bells.

A high grade bell, in oak case.



No. 886.

Series.

No. 110–200.....	80	ohms.....each,	$2.70
,, 111–200.....	160	,, ... ,,	2.90
,, 112–200.....	300	,, ... ,,	3.10

Bridging.

No. 115–200.....	500	ohms.....each,	$3.30
,, 116–200.....1000	,,	..... ,,	3.80
,, 117–200.....1600	,,	..... ,,	4.10
,, 118–200.....2000	,,	..... ,,	4.90
,, 119–200.....2400	,,	..... ,,	5.10
,, 120–200.....2500	,,	..... ,,	5.20

Wotton Loud-Ringing Extension Bells.

Will operate on telephone circuits or on any power or lighting circuits from 25 to 60 cycles and from 50 to 250 volts.

The base is so arranged that a two-M. F. condenser may be mounted inside.

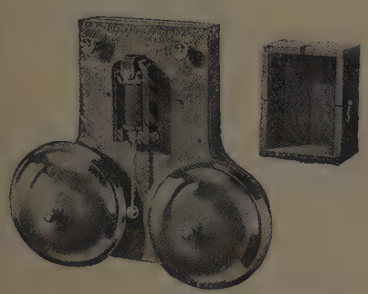
Special condensers will be furnished to order where desired in connection with lighting circuits where push buttons are employed.

The base is of quartered oak, finely finished. Gongs, 6-inch. Other finishes to order.



H.-C. Extension Bell.

	Resistance of Ringer.		List Price with Condenser.	List Price without Condenser.
No. 500.....	80	ohms.....		$9.00
,, 501.....	100	,, ...		9.05
,, 502.....	200	,, ...		9.15
,, 503.....	300	,, ...		9.20
,, 504.....	500	,, ...		9.30
,, 505.....	600	,, ...		9.35
,, 506.....1000		,, ...	$11.50	9.50
,, 507.....1600		,, ...	11.75	9.75
,, 508.....2000		,, ...	12.00	10.00
,, 509.....2500		,, ...	12.25	10.25



Wotton Loud-Ringing Extension Bell.

H.-C. Loud-Ringing Extension Bells.

These bells are furnished with or without condenser base. If the latter is required it should be stated whether two- or four-M. F. condensers are to be used.

A four-M. F. condenser is recommended for bells having a resistance of 500 to 1,600 ohms and a two-M. F. condenser for resistance of 1,600 to 2,500 ohms.

Gongs, 6-inch.

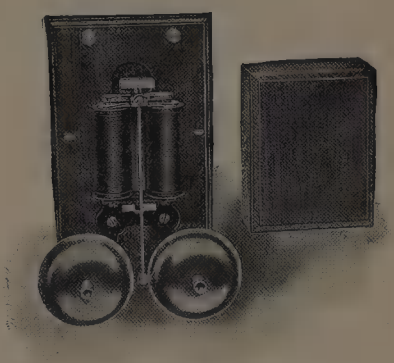


No. 143–200.

Wood Frame Pattern.				Without Condenser.
No. 143–200.	Extension bell,	80-ohm.....each,		$8.00
,, 144–200.	,,	,, 160	,, ... ,,	8.20
,, 145–200.	,,	,, 300	,, ... ,,	8.40
,, 146–200.	,,	,, 500	,, ... ,,	8.60
,, 147–200.	,,	,, 1000	,, ... ,,	8.80
,, 148–200.	,,	,, 1200	,, ... ,,	9.00
,, 149–200.	,,	,, 1600	,, ... ,,	9.20
,, 150–200.	,,	,, 2000	,, ... ,,	9.60
,, 151–200.	,,	,, 2400	,, ... ,,	10.00
,, 152–200.	,,	,, 2500	,, ... ,,	10.20



No. 159–200.



No. 123-200.



Dandy Indicating Bell. No. 38–151A.



Eclipse.

BELLS, Extension.

H.-C. Loud-Ringing Extension Bells (Continued).

Weather Proof Pattern.				Without Condenser.
No. 159–200.	Extension bell,		80-ohm..each,	$11.00
,, 160–200.	,,	,,	160 ,, .. ,,	11.20
,, 161–200.	,,	,,	300 ,, .. ,,	11.40
,, 162–200.	,,	,,	500 ,, .. ,,	11.60
,, 163–200.	,,	,,	1000 ,, .. ,,	11.80
,, 164–200.	,,	,,	1200 ,, .. ,,	12.00
,, 165–200.	,,	,,	1600 ,, .. ,,	12.20
,, 166–200.	,,	,,	2000 ,, .. ,,	12.60
,, 167–200.	,,	,,	2400 ,, .. ,,	13.00
,, 168–200.	,,	,,	2500 ,, .. ,,	13.20

Condensers Extra.

No. 139–201.....Condenser, 2 M. F.....each, $2.00
,, 140–201..... ,, 4 M. F..... ,, 3.80

H.-C. Special Extension Bells.

Neat and compact. Standard striker movement. Equipped with patent adjustable armature holder.

No. 123–200.	Extension bell,		80-ohm..each,	$2.50
,, 124–200.	,,	,,	160 ,, .. ,,	2.70
,, 125–200.	,,	,,	300 ,, .. ,,	2.90
,, 126–200.	,,	,,	500 ,, .. ,,	3.10
,, 127–200.	,,	,,	1000 ,, .. ,,	3.60
,, 128–200.	,,	,,	1600 ,, .. ,,	3.90
,, 129–200.	,,	,,	2000 ,, .. ,,	4.70
,, 130–200.	,,	,,	2400 ,, .. ,,	4.90
,, 131–200.	,,	,,	2500 ,, .. ,,	5.00

BELLS, Indicating.

The Dandy Two-Point Indicating Bell.

It serves the purpose of two bells, for front and back doors, and is also advantageous for many special requirements.

Made in a strong, well finished oak case, with glass front and gilded numbers. The needle does not require resetting. Special lettering 10c. extra.

No. S-600. Size of case, 4½ x 5 in.....each, $2.50

By the addition of a small buzzer, fastened to the gong post under the gong, it becomes a three-point annunciator, applicable to the three calls of front door, back door and dining room.

No. S-601. Dandy 3-point bell.....each, $3.50

The H.-C. Indicator Bell.

Provided with a drop of the French pattern operating in connection with the standard wood box bell construction. The drop always indicates the last call, no resetting being required. Case can be finished to match surroundings but is supplied in oak unless otherwise specified.

No. 38–151A. 2½-in. gong, 2 ohms.....each, $2.25

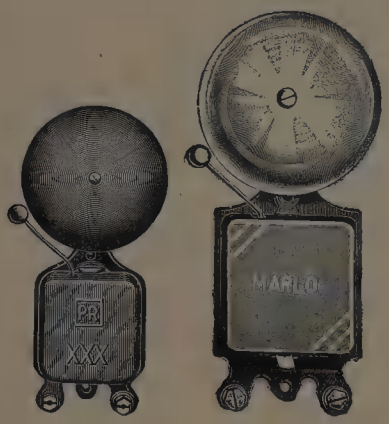
BELLS, Iron Box.

Eclipse Iron Box Bells.

A substantial, well made but low priced bell, made by automatic machinery and special tools. Working parts are of Norway iron mounted on cast base. Improved contact post with pure silver contact (not German silver). Cannot get out of adjustment. Will ring clear on one cell of battery and will not buzz on ten.

	Std. Pkg.		
No. S-602..2½-in. iron box bell.....	100..	each,	$ .56
,, S-603..3 ,, ,, ,, ,, ...	100..	,,	.58
,, S-604..4 ,, ,, ,, ,, ...	50..	,,	.74
,, S-605..Fancy gong bells.....		,,	.86

BELLS, Iron Box (Continued).



XXX. Marlo.

XXX Iron Box Bells.

The standard iron box bell for general use. Has best pivoted armature ever designed for an iron box bell. Side screw adjustment and flexible post rear adjustment, also improved screw contact post. Non-turning binding-posts with slotted cap. Pure silver contacts.

		Std. Pkg.		
No. S-606	2½-in. iron box bell	100	each,	$ .60
,, S-607	3 ,, ,, ,, ,,	100	,,	.62
,, S-608	4 ,, ,, ,, ,,	50	,,	.80
,, S-609	Fancy gong bells		,,	.90



Wizard.

Marlo Iron Box Bells.

Magnets wound to 5 ohms. Designed for high-grade work where several bells may be rung in multiple. Improved pivoted armature, flexible post rear adjustment. Gongs cannot loosen or turn. Screw contact post side adjustment, non-turning binding-posts.

		St. Pkg.		
No. S-610	2½-in. iron box bell	100	each,	$ .66
,, S-611	3 ,, ,, ,, ,,	100	,,	.68
,, S-612	4 ,, ,, ,, ,,	50	,,	.84
,, S-613	Fancy gong bells		,,	.96

No. 659. Wizard Iron Box Bell.

This bell is the non-adjustable type. It is a strong, well made bell at a low price.

2½-in. iron box bell	each,	$ .56
3 ,, ,, ,, ,,	,,	.58
4 ,, ,, ,, ,,	,,	.74
Fancy gong bells	,,	.86



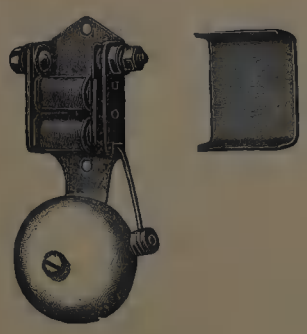
No. 641. Sleigh Bell.

No. 641. Eureka Iron Box Bell.

Pivoted armature, double adjustment.

2½-in. iron box bell	each,	$ .60
3 ,, ,, ,, ,,	,,	.62
4 ,, ,, ,, ,,	,,	.80
Fancy gong bells	,,	.90

BELLS, Lungen and Eco.



No. 13 Bell.

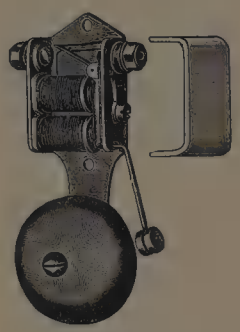
No. 13. Lungen Bell.

Cover and base of stamped steel. Contacts platinized. Hammer rod and armature of one piece. The tension is easily altered. Contact adjustment held securely by heavy spring nut. Dust proof.

1 in.	3 ohms resistance	each,	$ .90
1¾ ,,	3 ,, ,,	,,	.78
2 ,,	3 ,, ,,	,,	.80
2½ ,,	3 ,, ,,	,,	.62
3 ,,	3 ,, ,,	,,	.64
4 ,,	3 ,, ,,	,,	.88
5 ,,	3 ,, ,,	,,	2.20

With shunted magnets to operate in series extra, .50

Special resistances to order.



No. 18 Bell.

BELLS, Lungen and Eco (Continued).

No. 18. Eco Bell.

No adjustment screws to be displaced. Contact points platinized. Hammer rod and armature in one piece. Dust proof.

1- in.	3 ohms resistance	each,	$ .90
1¾ ,,	3 ,, ,,	,,	.78
2 ,,	3 ,, ,,	,,	.80
2½ ,,	3 ,, ,,	,,	.58
3 ,,	3 ,, ,,	,,	.60
4 ,,	3 ,, ,,	,,	.84

Sizes 1¾ to 4 inches finished in japan; 1 inch, full nickel.

BELLS, Magneto (see Magnetos and Telephones).

BELLS, Monitor.



Eureka Monitor Bell.

Eureka Monitor Bell.

Double adjustment, dust and bug proof. Unnecessary to remove gong to get at adjustment; simply turn it bottom upward; 3½ inches in diameter.

No. S-614. Monitor bell ..... each, $ .80



Hub Dome Bell.

Hub Dome Bell.

Smaller in size (2⅞ inches diameter) across the base and 2 inches in height over all. Base of wrought iron in one piece, frame the same. Gong and tassel which hold it to the frame are permanently fastened together so that gong may be taken off at any time without affecting the adjustment. Frame and armature copper plated. Gongs and base nickel plated.

No. 40–151A ..... 2½-in., 2 ohms, dome bell ..... each, $1.00

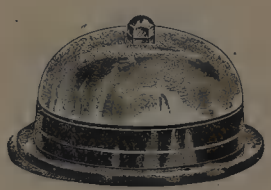


No. 1900 Bell.

No. 1900. Improved Monitor Bell.

The contact spring and binding-posts are set in slots in the frame preventing loosening and change of adjustment. Double magnets are used giving a powerful blow to hammer. Nickel plated gong cannot turn.

Diameter of base, 3½ in.; of gong, 3 in. Height, 2½ in.
Complete ..... each, $ .84



No. 156 Bell.

No. 156. R. E.-A. L. Monitor Bell.

Hammer rod supported in two places and thrown straight out and in by the armature, striking the gong on the inside near the edge. All springs phosphor bronze. Contacts platinized. No screws or nuts used in adjustment; hammer entirely concealed by gong. For telephone and annunciator use it can be furnished with shunt attachment which cuts magnet out of circuit.

Resistance, 3 ohms, base japanned, gong nickel plated,
2½ in. or 3 in. ..... each, $ .75
Shunt attachment extra ..... ,, .40

Wound to order for higher resistances.



No. 100 Recti Bell.

BELLS, Recti.

No. 100 Recti Bell.

Rapid and regular vibrations, contacts of carbon. Hammer rod operates in straight line through case. It is not pivoted but is thrown by the armature. Water, dust and insect proof. Can be furnished to operate on 500-volt circuits.

3 in., 3 ohms ... each,	$5.50	10 in., 3 ohms ... each,	$16.50
4 ,, 3 ,, ... ,,	5.75	12 ,, 3 ,, ... ,,	22.50
5 ,, 3 ,, ... ,,	7.50	14 ,, 3 ,, ... ,,	27.50
6 ,, 3 ,, ... ,,	8.50	15 ,, 3 ,, ... ,,	31.50
7 ,, 3 ,, ... ,,	9.50	16 ,, 3 ,, ... ,,	35.00
8 ,, 3 ,, ... ,,	10.50	18 ,, 3 ,, ... ,,	45.00
9 ,, 3 ,, ... ,,	13.50		

BELLS, Recti (Continued).



No. 100A Recti Bell for Automobiles.



H.-C. Return Call Bell.

No. 100A Recti Automobile Bell.

Similar to the regular "Recti" bell except that gong is fastened to the base with the concave side in a reverse position to prevent the accumulation of mud, etc., that would deaden the sound. Will operate on primary or storage batteries. In ordering state voltage.

3 in.,	3 ohms	each,	$5.50	10 in.,	3 ohms	each,	$16.50
4 ,,	3 ,,	,,	5.75	12 ,,	3 ,,	,,	22.50
5 ,,	3 ,,	,,	7.50	14 ,,	3 ,,	,,	27.50
6 ,,	3 ,,	,,	8.50	15 ,,	3 ,,	,,	31.50
7 ,,	3 ,,	,,	9.50	16 ,,	3 ,,	,,	35.00
8 ,,	3 ,,	,,	10.50	18 ,,	3 ,,	,,	45.00
9 ,,	3 ,,	,,	13.50				

BELLS, Relay.

Relay Bell No. 621.

This bell indicates a ground in gas-lighting circuits by a continuous ringing of the bell. It requires no relay or auxiliary battery to operate and simply needs to be placed in the gas-lighting circuit in such a position that it may be heard, should a short circuit occur.....each, $1.50



No. 621.

BELLS, Return Call.

H.-C. Return Call Bell

Consists of a standard vibrating bell combined with a push button in an ornamental case, for use in connection with hotel annunciators for return call signaling and in every instance where a combined bell and button is desired. All connections may be made on base before fastening cover in place.

Cover may be finished in light copper, oxidized copper or polished nickel, as desired. Size, 5¾ x 3¼ inches. Resistance, 4 ohms.

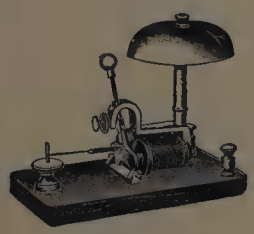
No. 45–151A. Return call bell and push .....each, $1.50

BELLS, Signal.

Signal Bells.

A single stroke district signal bell of new design with special improvements. Mounted on mahogany base, highly polished.

No. 1912	3-in. signal bell	each,	$2.50
,, 1913	6 ,, ,, ,,	,,	3.00



No. 1912.

BELLS, Skeleton.

Skeleton Bells, Straight Line.

The straight line skeleton bell is a high grade pivoted armature bell with nickel trimmings.

The improved pivoted armature obviates the wearing out of trunnion screws.

Pure bell metal gongs with square holes held in place with heavy cap screws so that they cannot turn or loosen.

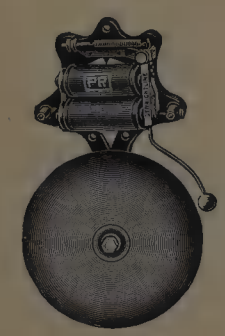
Pure platinum contacts.

Connections soldered to brass clips so that it is impossible to twist off wires or get loose connections.

Hammer is riveted to armature so that it cannot loosen or drop off. Posts are all non-turning and made of brass, polished and nickel plated, with nickel plated brass thumb screws and lock nuts.

Frame is designed so that the gong is in the centre of the magnets bringing both binding-posts on the same side so that no unsightly connecting wires are exposed.

No. S-615	2½	in.,	No. 3	movement,	5	ohms		$2.00
,, S-616	3	,,	,, 3	,,	5	,,		2.08
,, S-617	4	,,	,, 3	,,	5	,,		2.34
,, S-618	5	,,	,, 4	,,	5	,,		3.32
,, S-619	6	,,	,, 4	,,	5	,,		3.60
,, S-620	7	,,	,, 5	,,	7	,,		5.46
,, S-621	8	,,	,, 5	,,	7	,,		6.00
,, S-622	10	,,	,, 5	,,	7	,,		9.60
,, S-623	12	,,	,, 5	,,	7	,,		12.00
,, S-624	14	,,	,, 6	,,	10	,,		24.00
,, S-625	15	,,	,, 6	,,	10	,,		31.00



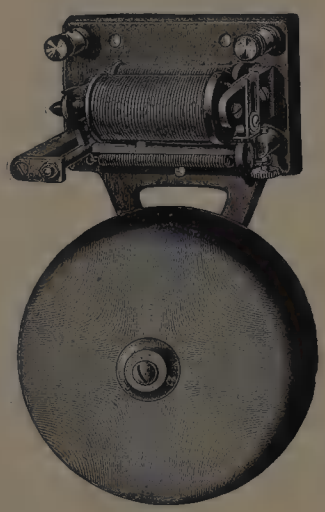
Skeleton Bell.



No. 985.



Tyrolean Bell.



Vigilant Bell.



Rex Bell.

BELLS, Smoke.

Smoke Bell.

No. 985.....Smoke bell or shade, brass....per doz., $2.10

BELLS, Testing (see Magnetos).

BELLS, Tyrolean.

The New Tyrolean Bell.

From a handsome bracket is suspended a 4-inch tea gong inside of which is attached a well made vibrating mechanism, requiring two or three cells of battery to operate it.

Can be furnished in all the standard finishes to suit condition.

Especially adapted for use in the front hall of a residence, or other prominent position.

No. S-626. Complete without batteries, nickel finish, each, $5.00

Other finishes.....net, extra, .50

BELLS, Vigilant.

No. 20. Vigilant Bell.

A single stroke or vibrating bell for railroads, schools, factories, fire alarms, etc. Magnets so designed that the armature is strongly pulled over a considerable distance giving a powerful stroke to the hammer.

Can be furnished as a single stroke bell, a vibrating bell or as a series bell, the latter so arranged that at every stroke its magnets are cut out and the current shunted on to the line, enabling any number of bells to be operated in series.

Size.			Single Stroke.	Vib.	Series or Comb. S.S. and Vib.
2½ in.	6 ohms	resistance	$4.80	$5.80	$6.80
3	6	,, ,,	5.00	6.00	7.00
4	6	,, ,,	5.50	6.50	7.50
5	6	,, ,,	6.20	7.20	8.20
6	6	,, ,,	7.50	8.50	9.50
8	6	,, ,,	10.00	11.00	12.00
10	6	,, ,,	14.40	15.40	16.40
12	6	,, ,,	15.00	16.00	17.00
14	6	,, ,,	26.20	27.20	28.20
16	6	,, ,,	30.00	31.00	32.00
18	6	,, ,,	46.50	47.50	48.50
20	6	,, ,,	75.00	76.00	77.00

These bells can be wound to the required resistance to operate on direct current up to 500 volts, providing they are not needed for continuous ringing.

Sizes 2½ in. to 6 in. finished with japan base. All other parts in polished nickel plate. Larger size gongs, binding-posts, etc., are finished in polished bronze.

BELLS, Wood Box.

Rex Wood Box Bell

Has a double screw contact post for adjusting the length of hammer stroke, also double screw armature spring adjustment for increasing or decreasing the strength of stroke for strong or weak battery. The entire movement is made of Norway iron which is independent of the wood back. All wire connections are made on the face of the wood base, thus removing the wires from the back where there is danger of their coming in contact with damp walls and metal lath, thus averting short circuits and leaks. Heavy wood work with molded edges giving the bell a neat and ornamental appearance.

		Std. Pkg.		
No. S-626	2½ in. Rex bell	100	each,	$ .82
,, S-627	3 ,, ,, ,,	100	,	.84
,, S-628	4 ,, ,, ,,	50	,,	1.04
,, S-629	Fancy gongs		,,	1.12

Platinum points extra, 24c.



No 621. Rosette Bell.

BELLS, Wood Box (Continued).

No. 621 Wood Box Bell.

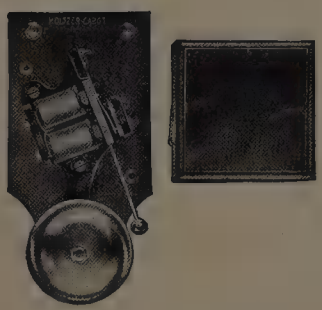
	Std. Pkg.		
2½ in. Ansonia bell	100	each,	$ .82
3 ,, ,, ,,	100	,,	.84
4 ,, ,, ,,	50	,,	1.04
Fancy gongs		,,	1.12

Rosette Bells.

		In.	Std. Pkg.	Each.
No. S-630.	Rosette wood box bell,	2½	100	$ .82
,, S-631.	,, ,, ,, ,,	3	100	.84
,, S-632.	,, ,, ,, ,,	4	50	1.04
,, S-633.	Fancy gongs			1.12

H.-C. Wood Box Bells.

Quartered oak base and cover, japanned iron frame, polished nickeled gong, double adjustment. Binding-posts will not turn. Straight bell hammer with no side vibration. Oak bells listed. Special finishes to order.



H.-C. Wood Box Bell.

Standard Pattern. A.

Size.				List Pr.
No. 1–151A	2½ in. gong,	2 ohms	resistance	$1.20
,, 2–151A	3 ,, ,,	2 ,,	,,	1.30
,, 3–151A	3½ ,, ,,	2 ,,	,,	1.60
,, 4–151A	4 ,, ,,	2 ,,	,,	1.80
,, 5–151A	5 ,, ,,	3 ,,	,,	2.70
,, 6–151A	6 ,, ,,	3 ,,	,,	3.00
,, 7–151A	8 ,, ,,	4 ,,	,,	6.50
,, 8–151A	10 ,, ,,	4 ,,	,,	8.00
,, 9–151A	12 ,, ,,	4 ,,	,,	10.00

Sleigh Pattern. B.

No. 10 –151A	1⅜ in. gong,	2 ohms	resistance	$1.40
,, 10½–151A	1⅝ ,, ,,	2 ,,	,,	1.60

Cow or Rectangular Pattern. C.

No. 11–151A	1⅞ in. gong,	2 ohms	resistance	$1.50
,, 12–151A	2 ,, ,,	2 ,,	,,	1.90
,, 13–151A	2⅛ ,, ,,	2 ,,	,,	2.10

Garland or Tower Pattern. D.

No. 19½–151A	2 in. gong,	2 ohms	resistance	$1.50

Open, Breakfast, Tea, or House Pattern. E.

No. 14–151A	2¼ in. gong,	2 ohms	resistance	$1.40
,, 17–151A	3⅛ ,, ,,	2 ,,	,,	3.80
,, 18–151A	3¾ ,, ,,	4 ,,	,,	4.50



A B C D E

BELLS, Water-tight.



H.-C. Water-tight Bell.

H.-C. Water-tight Bells.

For navy service, schools and all classes of out-door use or in places where water and dampness are prevalent, we furnish a vibrating bell which is absolutely water-tight. This class of bell can be furnished to operate on any voltage from 6 to 150 without external resistance and with practically no sparking at the platinum contacts. Bells above the 6-inch size can be furnished for any voltage up to 220 also, without external resistance.

The mechanism is completely enclosed in a metal case immediately above the gong. The magnets are securely fastened in a vertical position and act upon the armature in a downward direction which in turn drives the hammer also downward. The hammer does not strike directly against the gong but upon a thin phosphor bronze diaphragm secured to the bottom of the case and fitted with a rubber gasket. As the cover of the case is fitted with a rubber gasket the mechanism is not affected by dampness.

(*Continued on page 72.*)

BELLS, Water-tight.

H.-C. Water-tight Bells (Continued).

The connections may either be piped into the case or may pass in through a special stuffing box, as desired. The case can be furnished in black japan or black oxidized copper; the kind of finish should be specified when ordering.

The following prices apply to battery bells; prices for high voltage water-tight bells will be furnished upon application.

No. 55–151A	3-	in.	gong.	2	ohms	resistance..each,	$9.00
,, 56–151A	6	,,	,,	2	,,	,, .. ,,	14.00
,, 57–151A	8	,,	,,	4	,,	,, .. ,,	16.00
,, 58–151A	10	,,	,,	4	,,	,, .. ,,	20.00
,, 59–151A	12	,,	,,	8	,,	,, .. ,,	24.00
,, 60–151A	14	,,	,,	8	,,	,, .. ,,	28.00



Tool Belt.

BELT Dressing (see D).

BELTING, Leather (see Cord).

Special prices on all styles of leather belting on application.

BELTS, Leather.

Leather Belts.



Safety Strap, No. S-637.

No. S-634.	Lineman's tool belt, plain.....each,	$1.50
,, S-635.	Lineman's tool belt, with pouch, each,	2.00
,, S-636.	Lineman's tool belt, heavy, for use with safety strap.....each,	2.15
No. S-637.	Safety strap to attach to above with heavy snap on each end, and buckle for taking up slack...each,	1.90

BENDER, Conduit.

Rittenhouse Conduit Bender.



Rittenhouse Conduit Bender.

It will not bend the pipe on a radius of less than 3½ inches, but a short bend may be made by reversing bender. It is small enough to be carried in most any tool kit.

It is amply strong to withstand all kinds of usage.

It goes on the pipe at any point and doesn't have to slide on over the end.

There are many other reasons why this is the best bender on the market.

They are time savers and you cannot afford to be without them.

No. 1.	Bender complete, for ½-in. pipe.....	$2.75
,, 1.	Bender head only tapped for 1¼-in. pipe handle.....	2.00
No. 2.	Bender complete for ¾-in. pipe.....	3.00
,, 2.	Bender head only tapped for 1¼-in. pipe handle.....	2.25

BENDERS, Rail.

Jim Crow Rail Benders with Cross Bar.



Jim Crow Bender with Cross Bar.

		Weight.	Each.
No. 1.....	For 80 to 100-lb. rail.....220 lbs.		$21.00
,, 2.....	,, 60 ,, 75 ,, ,, ...200 ,,		19.00
,, 3.....	,, 30 ,, 55 ,, ,, ...140 ,,		17.00
,, 4.....	,, 12 ,, 30 ,, ,, ... 65 ,,		12.00

BENDERS, Rail (Continued).

Jim Crow Rail Benders without Cross Bar.



Jim Crow Bender without Cross Bar.

		Weight.	Each.
No. 5.	For 16-lb. rail,	35 lbs.	$7.00
,, 6.	,, 20 ,, ,,	50 ,,	9.00
,, 7.	,, 25 ,, ,,	65 ,,	10.00
,, 8.	,, 50 ,, ,,	95 ,,	13.00

BICHROMATE of Potash (see P).

BIGGIN, Coffee.

Coffee Biggin.

An ornamental biggin equally effective for making tea or coffee.

	Price.
No. 1251. One qt. biggin, heater 4½ in. diam., three heats, nickel plated. Watts 250	$13.50
No. 1252. One qt., three heats, silver plated. Watts 250	20.50
No. 0251. Same, biggin only, no heater, nickel plated,	5.00



No. 1251.

BILLIARD Table Shades (see S).

BINDING-Posts (see P).

BINDING Wire (see W).

BIT Extension (see E).

BIT Handles (see H).

BITS (see also Drills).

Russell-Jennings Auger Bits.

No. S-638.

Per. Doz.		Per Doz.
¼-in. diam.	$3.00	11/16 in. diam. $6.10
5/16 ,,	3.40	¾ ,, 6.60
3/8 ,,	3.80	13/16 ,, 7.20
7/16 ,,	4.40	⅞ ,, 7.80
½ ,,	4.80	15/16 ,, 8.40
9/16 ,,	5.20	1 ,, 9.00
⅝ ,,	5.60	



Auger Bit. Expansion Bit.

Clark's Expansion Bits, No. S-639.

Each.		Each.
½ to 1½ in.	$1.60	⅞ to 3 in. $2.40

Ford's or Swan's Single Twist Auger Bits, No. 20.

These bits clear themselves very rapidly of chips and enable the electrician to bore a greater number of holes in a given time than any other.

Per Doz.		Per Doz.
3/16-in. bit	$3.00	¾-in. bit $6.60
¼ ,, ,,	3.40	13/16 ,, ,, 7.20
5/16 ,, ,,	3.40	⅞ ,, ,, 7.80
3/8 ,, ,,	3.80	15/16 ,, ,, 8.40
7/16 ,, ,,	4.40	1 ,, ,, 9.00
½ ,, ,,	4.80	1 1/16 ,, ,, 9.60
9/16 ,, ,,	5.20	1 ⅛ ,, ,, 10.20
⅝ ,, ,,	5.60	1 3/16 ,, ,, 10.80
11/16 ,, ,,	6.10	1 ¼ ,, ,, 11.40



Ford's Single Twist Bit.

BLADES, Hack Saw (see Saw).

BLANKS (see Joints, insulating; and Tube, speaking).

BLASTING Dynamo (see D).



No. 0756 Blazer.

BLAZERS.

Simplex Blazers for Electric Stoves.

Heavy copper, nickel plated, rosewood handles with through bolt and cast brass socket. Will not become loose or break off.

No. 0756. Three-pt. blazer, fits stoves Nos. 1702 and 1732....each, $3.25
No. 0757. Two-qt. blazer, fits stoves Nos. 1703 and 1733.....each, 3.50
No. 0758. Two-qt. blazer, fits stoves Nos. 1704 and 1734.....each, 4.00

(See Stoves, electric.)

BLOCKS, Fuse (see Fuses, enclosed, Cut-Outs, and Arresters).

BLOCKS, House (see Brackets, house).

BLOCKS, Moulding.

Moulding Blocks.

These blocks are regularly furnished in white wood, not finished, and are carried in stock in the following styles: Hollow, Slotted, Terminal and Solid.

In ordering specify style desired.



Terminal Block. Slotted Block.

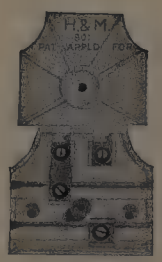
No.		Each.
S-640	3¼in. diameter moulding blocks..	$ .10
S-641	4 ,, ,, ,, ,, ..	.12
S-642	5 ,, ,, ,, ,, ..	.16
S-643	6 ,, ,, ,, ,, ..	.20

H. & M. Moulding Branch Blocks.

By using these blocks all disadvantages in making branches are done away with. Place the blocks where the branches are desired and complete the main line of moulding, finishing the branches afterward at your convenience. By the old method the branches have to be spliced before the main line is completed.

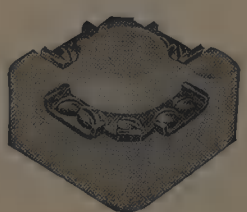


Solid Block.



H. & M. Branch Block.

	Each,
No. 901. Two-wire main to single 2-wire branch. Standard package 100.....each,	$ .45
No. 902. Two-wire main to double 2-wire branch. Standard package 100.....each,	.75
No. 903. Three-wire main to single 2-wire branch. Standard package 100.....each,	.80
No. 904. Three-wire main to double 2-wire branch. Standard package 50.....each,	.85
No. 905. Three-wire main to single 3-wire branch. Standard package 50.....each,	.90
No. 906. Three-wire main to double 3-wire branch. Standard package 50.....each,	1.15



No. S-644.

BLOCKS, Outlet.

Shawmut Outlet Blocks.

A porcelain block used for making connections in junction boxes for conduit work to save work of splicing wires. Fits Bossert box No. 1900 and is so constructed that it will take four branches.

No. S-644. Outlet block. Standard package 10.....each, $ .30

BLOCKS, Pulley.

Harcourt's Pat. Inside Iron-Strapped Blocks.

Dimensions. Size Sheave.	For Diam. Rope.	Size.	Mortise.	Iron Bushed. Single.	Double.	Triple.
1¾ x ½ x ⅜	⅜	3	9/16	$ .70	$1.30	$1.75
2 x ½ x ⅜	⅜	3½	9/16	.75	1.45	2.00
2¼ x ⅝ x ⅜	½	4	11/16	.85	1.60	2.15
3 x ¾ x ⅜	⅝	5	⅞	.90	1.75	2.25
3½ x 1 x ½	¾	6	1⅛	1.10	2.00	2.90
4¼ x 1 x ½	⅞	7	1⅛	1.30	2.40	3.50
4¾ x 1⅛ x ⅝	1	8	1¼	1.65	2.85	4.25
5½ x 1⅛ x ⅝	1	9	1¼	1.85	3.40	4.75
6¼ x 1¼ x ⅝	1⅛	10	1⅜	2.75	4.50	6.25
7¼ x 1¼ x ¾	1⅛	11	1⅜	4.45	7.50	10.65
8 x 1⅜ x ¾	1¼	12	1½	4.45	7.50	10.65



Harcourt's Iron-Strapped Blocks.

Dimensions. Size Sheave.	For Diam. Rope.	Size.	Mortise.	Patent Roller Bushed. Single.	Double.	Triple.
1¾ x ½ x ⅜	⅜	3	9/16	$1.10	$2.00	$2.90
2 x ½ x ⅜	⅜	3½	9/16	1.15	2.20	3.15
2¼ x ⅝ x ⅜	½	4	11/16	1.20	2.25	3.25
3 x ¾ x ⅜	⅝	5	⅞	1.25	2.35	3.50
3½ x 1 x ½	¾	6	1⅛	1.50	2.85	4.40
4¼ x 1 x ½	⅞	7	1⅛	1.70	3.35	5.00
4¾ x 1⅛ x ⅝	1	8	1¼	2.25	4.15	6.00
5½ x 1⅛ x ⅝	1	9	1¼	2.50	4.70	7.25
6¼ x 1¼ x ⅝	1⅛	10	1⅜	3.50	6.00	8.50
7¼ x 1¼ x ¾	1⅛	11	1⅜	5.30	9.20	13.20
8 x 1⅜ x ¾	1¼	12	1½	5.30	9.20	13.20

Tarbox Metal Blocks.

Dimensions. Size Block.	For Diam. Rope.	Iron Bushed. Sgl.	Dbl.	Tpl.	Patent Roller Bushed. Sgl.	Dbl.	Tpl.
2 in.	¼	$ .35	$ .70				
2½ ,,	7/16	.45	.80				
3 ,,	⅜	.70	1.30	$1.75	$1.10	$2.00	$2.90
3½ ,,	½	.75	1.45	2.00	1.15	2.20	3.15
4 ,,	½	.85	1.60	2.15	1.20	2.25	3.25
4½ ,,	⅝	.90	1.70	2.20	1.25	2.30	3.40
5 ,,	⅝	.90	1.75	2.25	1.25	2.35	3.50
5½ ,,	¾	1.00	1.90	2.65	1.40	2.60	4.00
6 ,,	¾	1.10	2.00	2.90	1.50	2.85	4.40
7 ,,	⅞	1.30	2.40	3.50	1.70	3.35	5.00
8 ,,	1	1.65	2.85	4.25	2.25	4.15	6.00



Tarbox Metal Blocks.

BLOCKS, Switch (see Switches, snap, flush and push).

BLOW Lamps (see Torches).

BLUE Vitriol (see V).

BOARD Ceiling (see Board, hanger).

BOARD Cut-Out (see Board, hanger).

BOARD Fuller (see Board, press).



No. 2046.



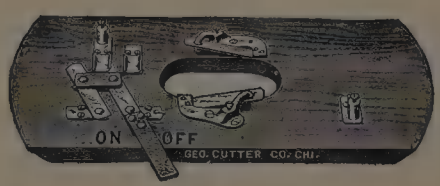
No. 2865 and 51856.



No. 36844.



No. 36850 and 37634.



Cutter's Hanger Board.

BOARDS, Hanger, Ceiling (see Cut-Outs, arc).

General Electric Arc Lamp Hanger Boards.

No. 2046. Porcelain ceiling board, plain. Standard package 10....each, $1.00

No. 2865. Porcelain ceiling board, fitted for Edison fuse plugs (without plugs). Standard package 10.....each, 1.25

No. 36844. Porcelain ceiling board, fitted for ferrule type enclosed fuses (without fuses). Standard package 10.....each, 1.25

This board may be equipped with National Electrical Code Standard enclosed fuses, of capacities ranging from 3 to 30 amperes, 250 volts.

No. 36850. Porcelain ceiling board with ceiling switch No. 30342 and fitted for Edison fuse plugs (without plugs). Standard package 10.....each, $2.50

It is particularly adapted for use with lamps installed on wharves or in railway stations, factories and mills, as the feature of the ceiling switch with ratchet and chain renders the lamp and board self-contained, requiring no additional wiring to connect the lamp to the switch controlling it.

Bases for Above Boards.

No. 51857. Wooden sub-base for No. 2046. Standard package 10....each, $ .60

No. 51856. Wooden sub-base for No. 2865. Standard package 10....each, .60

No. 37635. Wooden sub-base for No. 36844. Standard package 10....each, .60

No. 37634. Wooden sub-base for No. 36850. Standard package 10....each, .60

Fuses for Above Boards.

	Std. Pkg.	
Enclosed fuses...3 to 30 amps...	100...	each, $. 25
Fuse plugs.....3 ,, 30 ,, ..	500...	,, .07

Cutter's Hanger Boards.

No. S-653. Cutter's absolute cut-out board, made of maple, waterproofed, and fitted with spring contact hooks.....net, each, $1.20

No. S-654. Cutter's plain hanger board, with binding-posts and spring hooks only.....net, each, .80

BOARDS, Press (see Paper, insulating).

BOARDS, Tablet (see Panels).

BOARDS, Telltale.

G.-E. Running Light Telltale Boards.

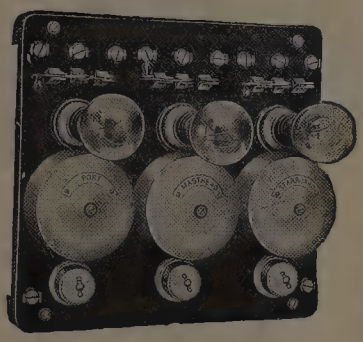
The telltale boards for running lights are simple in construction and reliable in operation. They are made in two designs providing for signal lantern with or without extra lamps.

The standard finish for these boards is black enameled slate base; the shells of the snap switch, bell and lamp socket and the bushings for screw holes are nickel plated; the terminals and knife switches are of copper, thus presenting a very handsome contrast.

Unless otherwise ordered, the telltale boards are always furnished for 110-volt lamps.

We are prepared to supply nickel-plated labels suitable for attaching to the bell cover. The following labels are regular: "Port," "Starboard," "Masthead," "Lantern," and "Peak."

BOARDS, Telltale.



No. 11145.



No. 11139.

G. E. Running Light Telltale Boards
(Continued).

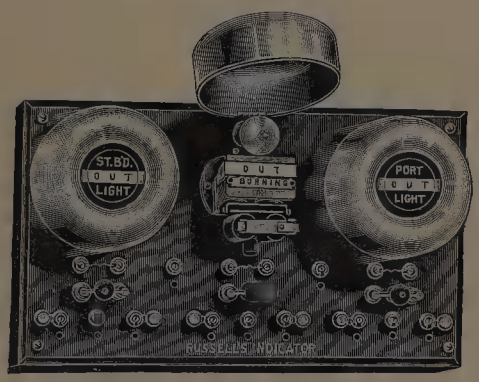
The list price includes the telltale boards without indicator lamps.

No.	No. of Running Lights.	No. of Extra Lights.	Height. In.	Width. In.	List.
11143	1	1	13	4½	$21.50
11144	2	2	13	9	40.00
11145	3	3	13	13½	60.00
11146	4	4	13	18	80.00
42458	5	5	13	22½	100.00
27604	6	6	13	27	120.00
11139	1		10½	4½	21.50
11140	2		10½	9	40.00
11141	3		10½	13½	60.00
11142	4		10½	18	80.00
42457	5		10½	22½	100.00
27603	6		10½	27	120.00

Russell Indicating Telltale.

A simple indicating telltale consisting of a vibrator and telltale lamp. Indicates when a lamp goes out. Requires two wires to each lantern.

No. 501. Simple indicating telltale, per light, $20.00



No. 500.

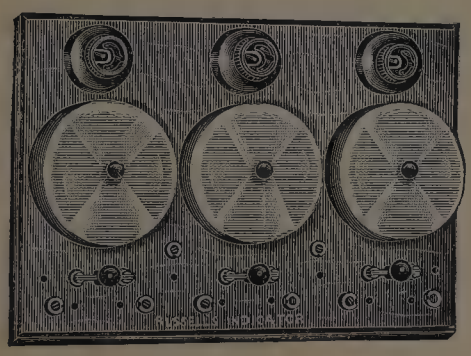
Russell Automatic Running Light Indicator and Control

Indicates when a signal light goes out by a vibrator, telltale lamp and annunciator drop.

At the same time closes a circuit to a reserve lamp insuring constant light.

Requires three wires to each lantern.

No. 500. Automatic running light indicator and control, per light, $40.00



No. 501.

BOILER, Electric (see Heaters, Stoves, Percolators, Kettles, etc.).

Simplex Double Boilers
(for use with Electric Stoves).

Outer vessel heavy copper; inner vessel porcelain.

No. 0772. Three pts. double boiler, porcelain food dish. Fits stoves Nos. 1702 and 1732, each, $3.25

No. 0773. Two qts. Same. Fits stoves Nos. 1703 and 1733 each, 4.00

No. 0774. Four qts. Same. Fits stoves Nos. 1704 and 1734 each, 5.25

No. 0776. Four qts. Same. Fits stoves Nos. 1705 and 1735 each, 6.75



Simplex Double Boilers.

BOILERS, Electric (Continued).

Simplex Vegetable Boilers.

Vegetable or meat boilers are made with covers, all of heavy copper, nickel plated and double tinned inside, as are all of the other utensils listed.

		Price.
No. 0777.	One gal. to fit stove No. 1704 or 1734.....	$3.50
,, 0778.	Two gals. to fit stove No. 1705 or 1735.....	4.50
,, 0779.	Four gals. to fit stove No. 1706 or 1736.....	6.00

G. E. Double Boiler.



When getting breakfast, this device may first be used as a water heater, then as a cereal cooker. When the cereal is cooked, the interior dish is removed, and the eggs boiled, using the boiling water then available. Later in the morning the potatoes are steamed (not "water soaked" by boiling). When the steam is utilized a small quantity of water is sufficient and the heater uses less current and requires less time for cooking.

It is made of sheet aluminum and tinned copper and provided with a faucet to draw off the water. The heating element is "Quartz Enamel" type.

No. 42863..	2 qts.	500	watts,	95–105	volts...each,	$16.00
,, 42864..	2 ,,	500	,,	106–115	,, ... ,,	16.00
,, 39759..	2 ,,	500	,,	116–125	,, ... ,,	16.00
,, 42865..	1 qt.	500	,,	95–105	,, ... ,,	12.00
,, 42866..	1 ,,	500	,,	106–115	,, ... ,,	12.00
,, 41239..	1 ,,	500	,,	116–125	,, ... ,,	12.00

BOLT Cutters (see Clippers).

BOLTS, see following headings:

Bolts, Carriage.
,, Cross Arm.
,, Double Arming (see Bolts, spacing).
,, Expansion.
,, Eye.
,, Fork.
,, Machine.
,, Spacing.
,, Switchboard.
,, Toggle.
,, Track.
,, West End.

BOLTS, Carriage.

Carriage Bolts.

Manufacturer's Standard List.

Adopted Jan. 22, 1902, to take effect Feb. 1, 1902.

Price per Hundred.



Length in Inches.	¼	5/16	⅜	7/16	½	9/16 and ⅝	¾
1½	$1.00	$1.20	$1.60	$2.20			
1¾	1.04	1.25	1.68	2.29			
2	1.08	1.30	1.76	2.38			
2¼	1.12	1.35	1.84	2.47			
2½	1.16	1.40	1.92	2.56	$3.00	$5.20	$7.20
2¾	1.20	1.45	2.00	2.65	3.11	5.37	7.43
3	1.24	1.50	2.08	2.74	3.22	5.54	7.66
3¼	1.28	1.55	2.16	2.83	3.33	5.71	7.89
3½	1.32	1.60	2.24	2.92	3.44	5.88	8.12
3¾	1.36	1.65	2.32	3.01	3.55	6.05	8.35
4	1.40	1.70	2.40	3.10	3.66	6.22	8.58
4¼	1.44	1.75	2.48	3.19	3.77	6.39	8.81
4½	1.48	1.80	2.56	3.28	3.88	6.56	9.04
4¾	1.52	1.85	2.64	3.37	3.99	6.73	9.27
5	1.56	1.90	2.72	3.46	4.10	6.90	9.50
5½	1.64	2.00	2.88	3.64	4.32	7.24	9.96
6	1.72	2.10	3.04	3.82	4.54	7.58	10.42
6½	1.80	2.20	3.20	4.00	4.76	7.92	10.88
7	1.88	2.30	3.36	4.18	4.98	8.26	11.34
7½	1.96	2.40	3.52	4.36	5.20	8.60	11.80

(*Continued on page 79.*)

BOLTS, Carriage.

Carriage Bolts (Continued).

Manufacturer's Standard List.

Price per Hundred.

Length in Inches.	1/4	5/16	3/8	7/16	1/2	9/16 and 5/8	3/4
8	$2.04	$2.50	$3.68	$4.54	$5.42	$8.94	$12.26
8½	2.12	2.60	3.84	4.72	5.64	9.28	12.72
9	2.20	2.70	4.00	4.90	5.86	9.62	13.18
9½	2.28	2.80	4.16	5.08	6.08	9.96	13.64
10	2.36	2.90	4.32	5.26	6.30	10.30	14.10
11	2.52	3.10	4.64	5.62	6.74	10.98	15.02
12	2.68	3.30	4.96	5.98	7.18	11.66	15.94
13	2.84	3.50	5.28	6.34	7.62	12.34	16.86
14	3.00	3.70	5.60	6.70	8.06	13.02	17.78
15	3.16	3.90	5.92	7.06	8.50	13.70	18.70
16	3.32	4.10	6.24	7.42	8.94	14.38	19.62
17	3.48	4.30	6.56	7.78	9.38	15.06	20.54
18	3.64	4.50	6.88	8.14	9.82	15.74	21.46
19	3.80	4.70	7.20	8.50	10.26	16.42	22.38
20	3.96	4.90	7.52	8.86	10.70	17.10	23.30



Cross Arm Bolt.

BOLTS, Cross Arm.

Cross Arm Bolts.

For fastening wood cross arms to wood poles.
Prices include bolt and nut without washer.

Plain.	Galvanized.	Length.	Diam.		Plain.	Galvan'd.
No. 42427	No. 42433	10 in.	5/8 in.	per 100,	$9.60	$12.25
,, 42428	,, 42434	12 ,,	5/8 ,,	,,	10.80	14.00
,, 42429	,, 42435	14 ,,	5/8 ,,	,,	12.00	15.75
,, 42430	,, 42436	16 ,,	5/8 ,,	,,	13.25	17.60
,, 42431	,, 42437	18 ,,	5/8 ,,	,,	14.50	19.50
,, 42432	,, 42438	20 ,,	5/8 ,,	,,	16.00	21.00

BOLTS, Double Arming (see Bolts, spacing).

BOLTS, Expansion.



Diamond Expansion Bolt, Complete.

Diamond Expansion Bolts.

The Diamond Expansion Shield is now made to fit the regular stock lag screws made by the different manufacturers.

In ordering Diamond Expansion Bolts note that the length of shield determines the depth of the hole to be drilled. Always state style of head of lag screw and length and diameter as well.

Malleable Shields with Square Head Screws Complete, per 100.

Length, in.	1/4 in.	5/16 in.	3/8 in.	1/2 in.	5/8 in.	3/4 in.	7/8 in.	1 in.	1¼ in.
2	$9.00	$9.90							
2½	9.05	10.00	$12.00	$18.80	$23.00	$31.00			
3	9.10	10.10	12.50	19.40	24.00	32.00			
4	9.20	10.20	13.00	20.00	25.00	33.00			
5	....	10.30	13.90	20.60	26.00	34.00			
6	....	10.40	14.10	20.90	27.00	35.00	$45.00	$56.00	
7	....	10.50	14.30	21.20	28.00	36.00	46.00	57.00	
8	....	....	14.50	21.50	29.00	37.00	47.00	58.00	
9	....	....	....	21.80	30.00	38.00	48.00	59.00	
10	....	....	....	....	31.00	39.00	49.00	60.00	$76.00
11	....	....	....	....	32.00	40.00	50.00	61.00	77.50
12	....	....	....	....	33.00	41.00	51.00	62.00	79.00

Malleable Shields only per 100.

1/4 in,	5/16 in.	3/8 in.	1/2 in.	5/8 in.	3/4 in.	7/8 in.	1 in.	1¼ in.
$8.50	$9.00	$11.50	$18.00	$22.00	$30.00	$41.50	$51.00	$64.00

Dimensions of Long Standard Shields.

Diameter of screw.....	1/4 in.	5/16 in.	3/8 in.	1/2 in.	5/8 in.	3/4 in.	7/8 in.	1 in.	1¼ in.
Diameter of shield.....	1/2 ,,	5/8 ,,	3/4 ,,	7/8 ,,	1 ,,	1⅛ ,,	1½ ,,	1½ ,,	1⅞ ,,
Length of shield.....	1½ ,,	1¾ ,,	2¾ ,,	3½ ,,	3½ ,,	3½ ,,	5 ,,	5 ,,	8 ,,

Dimensions of Short Standard Shields, Composition or Malleable.

Diameter or No. of Screw.....	1/8″ or No. 5	5/32″ or No. 8	3/16″ or No. 10	7/32″ or No. 12	1/4″ or No. 14	5/16″ or No. 18	3/8″ or No. 24	1/2″ or No. 30
Diameter of shield.....	1/4	3/8	3/8	1/2	1/2	1/2	3/4	7/8
Length of shield.....	5/8	1⅛	1⅛	1⅛	1⅛	1⅛	1⅛ & 2	2

BOLTS, Expansion.

Diamond Expansion Bolts (Continued).

Composition Shields with R. H. Wood Screws Complete per 100.

Length in Inches.	Diameter in Inches or Number of Wood Screw.						
	5/32 or No. 8.	3/16 or No. 10.	7/32 or No. 12.	1/4 or No. 14	5/16 or No. 18.	3/8 or No. 24.	1/2 or No. 30.
1	$7.40	$7.90	$8.40				
1½	7.50	8.00	8.50	$8.95	$9.80		
2	7.60	8.10	8.60	9.00	9.90		
2½	7.70	8.20	8.70	9.05	10.00	$12.00	$18.80
3	7.80	8.30	8.80	9.10	10.10	12.50	19.40



Composition Shields only per 100.

5/32 or No. 8.	3/16 or No. 10.	7/32 or No. 12.	1/4 or No. 14.	5/16 or No. 18.	3/8 or No. 24.	1/2 or No. 30.
$7.00	$7.50	$8.00	$8.50	$9.00	$11.50	$18.00

One-Part Diamond Expansion Shield without Screws.

	Screw.	Length of Shield, Inches.	Outside Diameter, Inches.	Price Per 100.
1/8 x 5/8	No. 5 or 6	5/8	1/4	$2.10
3/16 x 3/4	No. 9–10–11	3/4	5/16	2.40
1/4 x 1/2	No. 12–13–14	1/2	3/8	2.70
1/4 x 3/4	No. 12–13–14	3/4	3/8	2.70
1/4 x 1	No. 12–13–14	1	7/16	2.70
5/16 x 3/4	No. 15–16–17–18	3/4	7/16	3.00
5/16 x 1	No. 15–16–17–18	1	7/16	3.00

This shield will fit all wood, lag, or machine screws.



Welded Eye Bolt.

Drop Forged Eye Bolt.

BOLTS, Eye.

Welded Eye Bolts.

Eye bolts are measured from centre of eye to end, and have a 4-inch thread unless otherwise directed.

We ship these fitted with one square nut and round washer, which are included in the weights given above.

	Weight per 100 in Lbs.			List per 100.		
	½ In.	⅝ In.	¾ In.	½ In.	⅝ In.	¾ In.
6 in. bolts	62	101	146	$10.00	$14.54	$20.94
7 ,, ,,	68	110	158	10.70	15.55	22.28
8 ,, ,,	73	119	171	11.40	16.56	23.62
9 ,, ,,	79	127	183	12.10	17.57	24.96
10 ,, ,,	84	136	196	12.80	18.58	26.30
11 ,, ,,	91	145	208	13.50	19.59	27.64
12 ,, ,,	96	153	219	14.20	20.60	28.98
13 ,, ,,	102	162	233	14.90	21.61	30.32
14 ,, ,,	108	171	246	15.60	22.62	31.66
15 ,, ,,	113	180	258	16.30	23.63	33.00
16 ,, ,,	120	188	270	17.00	24.64	34.34
17 ,, ,,	126	195	283	17.70	25.65	35.68
18 ,, ,,	132	206	296	18.40	26.66	37.02
19 ,, ,,	138	215	319	19.10	27.67	38.36
20 ,, ,,	144	224	332	19.80	28.68	39.70

Drop Forged Steel Eye Bolts.

Prices include nut and washer.

Plain.	Galv.		Plain.	Galv.
No. 40230	No. 40232	½ in. x 12 in. Eye Bolts ... per 100,	$45.00	$50.00
,, 40231	,, 40233	⅝ ,, x 12 ,, ,, ... ,,	62.50	67.50



No. 1054.

No. 19464.

BOLTS, Fork.

Fork Bolts.

No. 19464 ... ½ in. x 12 in. with porcelain insulator ... each, $ .55
,, 43683 ... ⅝ ,, x 14 ,, ,, ,, ... ,, .60

Fletcher's Insulated Bolt.

No. 1054 ... ½ in. x 12 in. insulated bolt ... each, $ .20
,, 1055 ... ⅝ ,, x 12 ,, ,, ,, ... ,, .22

BOLTS, Machine.

Machine Bolts.

With Square Heads and Square Nuts. Finished Points.

Adopted Sept. 20, 1899, to take effect Oct. 1, 1899.

Price per Hundred.



Machine Bolt.

Length in In.	1/4	5/16	3/8	7/16	1/2	9/16 & 5/8	3/4	7/8	1	1 1/8	1 1/4
1 1/2	$1.70	$2.00	$2.40	$2.80	$3.60	$5.20	$7.20	$10.50	$15.10	$22.50	$30.00
2	1.78	2.12	2.56	3.00	3.86	5.58	7.70	11.20	16.00	23.70	31.50
2 1/2	1.86	2.24	2.72	3.20	4.12	5.96	8.20	11.90	16.90	24.90	33.00
3	1.94	2.36	2.88	3.40	4.38	6.34	8.70	12.60	17.80	26.10	34.50
3 1/2	2.02	2.48	3.04	3.60	4.64	6.72	9.20	13.30	18.70	27.30	36.00
4	2.10	2.60	3.20	3.80	4.90	7.10	9.70	14.00	19.60	28.50	37.50
4 1/2	2.18	2.72	3.36	4.00	5.16	7.48	10.20	14.70	20.50	29.70	39.00
5	2.26	2.84	3.52	4.20	5.42	7.86	10.70	15.40	21.40	30.90	40.50
5 1/2	2.34	2.96	3.68	4.40	5.68	8.24	11.20	16.10	22.30	32.10	42.00
6	2.42	3.08	3.84	4.60	5.94	8.62	11.70	16.80	23.20	33.30	43.50
6 1/2	2.50	3.20	4.00	4.80	6.20	9.00	12.20	17.50	24.10	34.50	45.00
7	2.58	3.32	4.16	5.00	6.46	9.38	12.70	18.20	25.00	35.70	46.50
7 1/2	2.66	3.44	4.32	5.20	6.72	9.76	13.20	18.90	25.90	36.90	48.00
8	2.74	3.56	4.48	5.40	6.98	10.14	13.70	19.60	26.80	38.10	49.50
9	2.90	3.80	4.80	5.80	7.50	10.90	14.70	21.00	28.60	40.50	52.50
10	3.06	4.04	5.12	6.20	8.02	11.66	15.70	22.40	30.40	42.90	55.50
11	3.22	4.28	5.44	6.60	8.54	12.42	16.70	23.80	32.20	45.30	58.50
12	3.38	4.52	5.76	7.00	9.06	13.18	17.70	25.20	34.00	47.70	61.50
13	.....		6.08	7.40	9.58	13.94	18.70	26.60	35.80	50.10	64.50
14	.....		6.40	7.80	10.10	14.70	19.70	28.00	37.60	52.50	67.50
15	.....		6.72	8.20	10.62	15.46	20.70	29.40	39.40	54.90	70.50
16	.....		7.04	8.60	11.14	16.22	21.70	30.80	41.20	57.30	73.50
17	.....				11.66	16.98	22.70	32.20	43.00	59.70	76.50
18	.....				12.18	17.74	23.70	33.60	44.80	62.10	79.50
19	.....				12.70	18.50	24.70	35.00	46.60	64.50	82.50
20	.....				13.22	19.26	25.70	36.40	48.40	66.90	85.50
21	.....						26.70	37.80	50.20	69.30	88.50
22	.....						27.70	39.20	52.00	71.70	91.50
23	.....						28.70	40.60	53.80	74.10	94.50
24	.....						29.70	42.00	55.60	76.50	97.50
25	.....						30.70	43.40	57.40	78.90	100.50
26	.....						31.70	44.80	59.20	81.30	103.50
27	.....						32.70	46.20	61.00	83.70	106.50
28	.....						33.70	47.60	62.80	86.10	109.50
29	.....						34.70	49.00	64.60	88.50	112.50
30	.....						35.70	50.40	66.40	90.90	115.50

The following are the weights of the sizes of machine bolts most commonly used in construction work :

	Weight per 100. 1/2	5/8	3/4		Weight per 100. 1/2	5/8	3/4
8-in. bolts,	56.0	90.0	136.6	16-in. bolts,	100.0	156.5	233.2
9 ,, ,,	61.5	98.0	148.8	17 ,, ,,	105.5	165.0	245.4
10 ,, ,,	67.0	106.3	161.0	18 ,, ,,	111.0	173.5	257.6
11 ,, ,,	72.5	114.6	173.2	19 ,, ,,	116.5	182.0	269.8
12 ,, ,,	78.0	122.9	184.4	20 ,, ,,	122.0	190.5	282.0
13 ,, ,,	83.5	131.2	196.6	21 ,, ,,	127.5	198.0	294.0
14 ,, ,,	89.0	139.5	208.8	22 ,, ,,	133.0	206.0	306.0
15 ,, ,,	94.5	148.0	221.0				

BOLTS, Spacing.

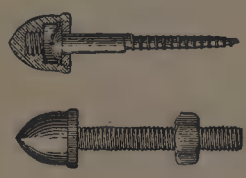
Spacing or Double Arming Bolts.



Spacing Bolt.

	Weight per 100. 1/2 In.	5/8 In.		Weight per 100. 1/2 In.	5/8 In.		Weight per 100. 1/2 In.	5/8 In.
8-in. bolts,	66	113	13-in. bolts,	91	153	18-in. bolts,	116	193
9 ,, ,,	71	121	14 ,, ,,	96	161	19 ,, ,,	121	201
10 ,, ,,	76	129	15 ,, ,,	101	169	20 ,, ,,	126	209
11 ,, ,,	81	137	16 ,, ,,	106	177			
12 ,, ,,	86	145	17 ,, ,,	111	185			

Prices on application.



Switchboard Bolts.

BOLTS, Switchboard.

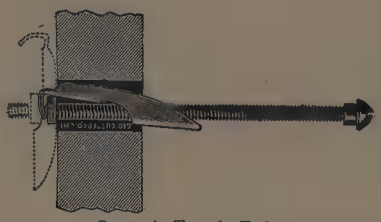
Switchboard Bolts.

With polished brass heads (other finishes to order) for use at corners of slate and marble switchboards.

No. S-655.....Wood screw.....each, $ .30
,, S-656.....Machine screw..... ,, .40

BOLTS, Toggle.

Cutter's Toggle Bolts.



Cutter's Toggle Bolt.

Can be used with threaded end and nut outside or with screw head outside as desired.

No.		Pkg. of 10.	Box of 25.	Box of 100.	1,000 or more.
S-657.	Slender, $\frac{1}{8}$ x 3.....	$ .20	$ .45	$1.70	$16.00
S-658.	,, $\frac{1}{8}$ x 4.....	.25	.50	1.90	17.50
S-659.	,, $\frac{1}{8}$ x 6.....	.30	.65	2.20	20.00
S-660.	Regular, $\frac{3}{16}$ x 3.....	.22	.50	1.80	17.00
S-661.	,, $\frac{3}{16}$ x 4.....	.25	.55	2.00	18.00
S-662.	,, $\frac{3}{16}$ x 6.....	.30	.70	2.50	22.50
S-663.	Quarter Inch, $\frac{1}{4}$ x 4...	.28	.60	2.20	20.00
S-664.	,, ,, $\frac{1}{4}$ x 6..	.30	.70	2.60	24.00
S-665.	Jumbo, $\frac{5}{16}$ x 4.....	.35	.80	3.00	27.50
S-666.	,, $\frac{5}{16}$ x 6.....	.40	.95	3.50	32.50

Add 20 per cent for blued heads, 50 per cent for nickeled heads.

BOLTS, Track.



Track Bolt.

Track Bolts.

$\frac{1}{2}$ in. diam., $2\frac{1}{2}$ in. length.
$\frac{9}{16}$,, ,, $2\frac{1}{2}$,, ,,
$\frac{5}{8}$,, ,, $2\frac{3}{4}$, 3, $3\frac{1}{4}$, $3\frac{1}{2}$ in. length.
$\frac{3}{4}$,, ,, 3, $3\frac{1}{4}$, $3\frac{1}{2}$, $3\frac{3}{4}$, 4 in. length.
$\frac{7}{8}$,, ,, 3, $3\frac{1}{2}$, 4 in. length.
1 ,, ,, $3\frac{1}{2}$, 4 in. length.

In ordering track bolts give full particulars in regard to length, diameter, style of head, neck, and nut. Most roads now use oval neck button head style. Prices on application.

BOLTS, West End (see Suspension).

BONDS.

G. E. Rail Bonds.



Form B "S" Shaped.

General Electric Rail Bonds are made in every form of both terminal stud and soldered types and in all bonds having ribbon or stranded conductors, the terminal is a drop forging of pure copper, of highest conductivity, arranged for the reception of the conductor to which it is welded by special process.

The variety of forms in which the ribbon bonds are made adapt them to use with any standard joint; the laminations of the conductor are disposed as may be necessary to span the fish plate bolts. In the form A-1 and form A-2 bonds, which are suitable for a large proportion of joints in general use, the conductor ribbons are equally divided.



Form C.

In cases where the bond holes are drilled between the end of the rail and the first fish plate bolt in one rail, and between the first and second fish plate bolts in the

(*Continued on page 83.*)



Form A-4.



Form A-1.



Form A-2.



Form A-3.



Form D. Cable Bond. Form E. Solid Wire.

BONDS, Rail.

G. E. Rail Bonds (Continued).

other rail, it is necessary to displace the "tucking" one inch from the center; this is also necessary in many cases of double bonding. It is essential that the tucking desired be specified in every order.

Where the space above and below the fish plate bolts is unevenly divided a corresponding division of the conductor laminations may be made, giving equal distribution of the total clearance available.

With orders for such "unbalanced" bonds it is especially desirable that a cross section of the joint be furnished in order that the proper division of the laminations may be determined.

When the drilling of the joint is such that both bond holes may be drilled between the end of the rail and the first fish plate bolt, the conductor laminations are not divided but are tucked into the form of the letter "S." These "S" bonds afford ample flexibility in lengths not less than 3½ inches between terminal centres.

The form C bonds are used on the bottom flange of either T or girder rails, and the terminal heads of these bonds are beveled to correspond with the bevel of the rail foot.

As in the form A and form B bonds, the conductor laminations are so disposed as to give maximum flexibility in the vertical plane.

Outside of the fish plate where vibration is considerable, cable bonds are used. In these the conductor is a single cable of concentric copper wires of extreme flexibility, welded to the terminals by the process to which reference has already been made. These cable bonds may also be used to advantage under many conditions in exposed work where the vibration is such as to require a flexible conductor. The form D-1 is the standard cable bond and is furnished unless the special form D-2 is specified.

The form D-2 cable bond is similar to form D-1 but has a protecting sleeve surrounding the cable where it emerges from the terminal. This sleeve which is part of the terminal proper extends some distance beyond the weld and distributes the strains of vibration so as to prevent breakage of individual strands. (Special prices for form D-2 on application.)

Stub end bonds are frequently employed in special work where the free cable end is to be spliced to a long bond spanning crossings, etc. The standard length is 12 inches, but it can be furnished in any length desired.

The price of a stub end bond is one-half the price of a two-terminal cable bond of twice its length.

Solid Wire Bonds: Where long distances are to be spanned, and especially in the absence of serious vibration, solid wire bonds afford sufficient flexibility. In these bonds the terminals are formed by upsetting the ends of the conductor itself, so that conductor and terminals are one homogeneous piece.

In many cases of special work, separate bond terminals are required. These can be supplied ready drilled and tinned for soldering to the conductor.

Diameter of Terminal. Stud in inches.	List Prices per 100 Terminals. With Solid Head.	With Steel Core.
¾	$27.00	$30.75
⅞	28.50	32.25
1	30.00	33.75

Orders must specify drilling required for the conductor.

BONDS, Rail.

G. E. Rail Bonds (Continued).

List Prices per 100 Bonds, Ribbon, Cable, or Solid Wire Conductor with Solid Copper Terminals.

Conductor.	Terminal.	4-inch Bonds.	5-inch Bonds.	6-inch Bonds.	7-inch Bonds.	8-inch Bonds.	9-inch Bonds.	10-inch Bonds.	11-inch Bonds.	12-inch Bonds.	13-inch Bonds.
0	½-in.	$40.00	$41.50	$43.00	$44.50	$46.00	$47.50	$49.00	$50.60	$52.20	$53.80
0	⅝ ,,	42.50	44.00	45.50	47.00	48.50	50.00	51.50	53.10	54.70	56.30
00	⅝ ,,	45.00	46.60	48.20	49.80	51.40	53.00	54.60	56.30	58.00	59.70
00	¾ ,,	50.50	52.10	53.70	55.30	56.90	58.50	60.10	61.80	63.50	65.20
000	¾ ,,	54.20	56.60	59.00	61.40	63.80	66.20	68.60	71.10	73.60	76.10
000	⅞ ,,	56.20	58.60	61.00	63.40	65.80	68.20	70.60	73.10	75.60	78.10
0000	¾ ,,	56.50	59.00	61.50	64.00	66.50	69.50	72.50	75.60	78.70	81.80
0000	⅞ ,,	59.00	61.50	64.00	66.50	69.00	72.00	75.00	78.10	81.20	84.30
250000	⅞ ,,	62.00	65.00	68.00	71.00	74.00	77.50	81.00	84.50	88.00	91.50
250000	1 ,,	67.00	70.00	73.00	76.00	79.00	82.50	86.00	89.50	93.00	96.50
275000	⅞ ,,	65.10	68.80	72.50	76.30	80.00	84.00	88.00	92.00	96.00	100.00
275000	1 ,,	70.10	73.80	77.50	81.30	85.00	89.00	93.00	97.00	101.00	105.00
300000	⅞ ,,	68.80	72.80	76.80	80.80	84.80	89.00	93.50	98.00	102.50	107.00
300000	1 ,,	73.80	77.80	81.80	85.80	89.80	94.00	98.50	103.00	107.50	112.00
325000	⅞ ,,	....	77.00	81.50	86.00	90.50	95.00	100.00	105.00	110.00	115.00
325000	1 ,,	....	82.00	86.50	91.00	95.50	100.00	105.00	110.00	115.00	120.00
350000	⅞ ,,	....	80.00	85.00	90.00	95.00	100.00	105.50	111.00	116.50	122.00
350000	1 ,,	....	85.00	90.00	95.00	100.00	105.00	110.50	116.00	121.50	127.00
375000	⅞ ,,	....	88.60	93.80	99.00	104.30	109.50	115.30	121.00	126.80	132.50
375000	1 ,,	....	93.60	98.80	104.00	109.30	114.50	120.30	126.00	131.80	137.50
400000	⅞ ,,	.....		97.00	103.00	109.00	115.00	121.00	127.50	134.00	140.50
400000	1 ,,	.....		102.00	108.00	114.00	120.00	126.00	132.50	139.00	145.50
425000	⅞ ,,	.....		101.00	107.00	113.00	119.00	125.00	131.50	138.00	144.50
425000	1 ,,	.....		106.00	112.00	118.00	124.00	130.00	136.50	143.00	149.50
450000	⅞ ,,	.....		105.00	111.00	117.00	123.00	129.00	136.00	143.00	150.00
450000	1 ,,	.....		110.00	116.00	122.00	128.00	134.00	141.00	148.00	155.00
500000	1 ,,	.....		120.00	127.50	135.00	142.50	150.00	157.50	165.00	172.50
500000	1 1/16 ,,	.....		123.00	130.50	138.00	145.50	153.00	160.50	168.00	175.50
1000000	1¼ ,,	.....			200.00	215.00	230.00	245.00	260.00	275.00	290.00

List Prices per 100 Bonds, Ribbon, Cable, or Solid Wire Conductor with Solid Copper Terminals.

Conductor.	Terminal.	14-inch Bonds.	15-inch Bonds.	16-inch Bonds.	17-inch Bonds.	18-inch Bonds.	For each addi'l in. over 18 in. add to List of 18-inch Bonds.
0	½-in.	$55.40	$57.00	$58.70	$60.40	$62.10	$1.20
0	⅝ ,,	57.90	59.50	61.20	62.90	64.60	1.20
00	⅝ ,,	61.40	63.10	64.90	66.70	68.50	1.40
00	¾ ,,	66.90	68.60	70.40	72.20	74.00	1.40
000	¾ ,,	78.60	81.10	83.70	86.30	88.90	1.70
000	⅞ ,,	80.60	83.10	85.70	88.30	90.90	1.70
0000	¾ ,,	84.90	88.00	91.50	95.00	98.50	2.10
0000	⅞ ,,	87.40	90.50	94.00	97.50	101.00	2.10
250000	⅞ ,,	95.00	99.00	103.00	107.00	111.00	2.50
250000	1 ,,	100.00	104.00	108.00	112.00	116.00	2.50
275000	⅞ ,,	104.00	108.50	113.00	117.50	122.00	2.70
275000	1 ,,	109.00	113.50	118.00	122.50	127.00	2.70
300000	⅞ ,,	111.50	116.50	121.50	126.50	131.50	2.90
300000	1 ,,	116.50	121.50	126.50	131.50	136.50	2.90
325000	⅞ ,,	120.00	125.50	131.00	136.50	142.00	3.50
325000	1 ,,	125.00	130.50	136.00	141.50	147.00	3.50
350000	⅞ ,,	127.50	133.50	139.50	145.50	151.50	3.70
350000	1 ,,	132.50	138.50	144.50	150.50	156.50	3.70
375000	⅞ ,,	138.30	144.50	150.80	157.00	163.30	4.00
375000	1 ,,	143.30	149.50	155.80	162.00	168.30	4.00
400000	⅞ ,,	147.00	153.50	160.00	166.50	173.00	4.20
400000	1 ,,	152.00	158.50	165.00	171.50	178.00	4.20
425000	⅞ ,,	151.00	158.00	165.00	172.00	179.00	4.50
425000	1 ,,	156.00	163.00	170.00	177.00	184.00	4.50
450000	⅞ ,,	157.00	164.50	172.00	179.50	187.00	4.70
450000	1 ,,	162.00	169.50	177.00	184.50	192.00	4.70
500000	1 ,,	180.00	187.50	195.00	202.50	210.00	5.10
500000	1 1/16 ,,	183.00	190.50	198.00	205.50	213.00	5.10
1000000	1¼ ,,	305.00	320.00	335.00	350.00	365.00	12.00

Extra for Steel Core Terminals, $7.50 per 100, list.
All prices subject to change without notice.

BONDS, Rail (Continued).

G. E. Soldered Rail Bonds.

Soldered bonds are designed for use when the space under the fish plate will not accommodate a terminal stud bond of the required capacity, or to avoid the removal of the fish plate.

In all soldered bonds having ribbon conductors, the individual laminations are in the horizontal plane so as to allow the greatest flexibility in the vertical plane.

The contact surfaces of all soldered bonds are provided with minute spot bosses for the purpose of providing space between the terminal and the rail for a thin film of solder.

Form AS-1 has equally divided ribbons and centre tucking.

Form AS-2 has equally divided ribbons and offset tucking.

Form AS-3 has unbalanced ribbons and centre tucking.

Form AS-4 has unbalanced ribbons and offset tucking.



Soldered Bond Terminal.

Form AS Bonds.

For attachment to web of rail under fish plate.

Conductor.	List Price per 100 Bonds. Overall Length. 7 Inch.	8 Inch.	9 Inch.	10 Inch.
00	$45.00	$46.60	$48.20	$49.80
000		56.60	59.00	61.40
0000		59.00	61.50	64.00
250000		65.00	68.00	71.00
300000			76.80	80.80
400000				100.00
500000				



Form AS.

Conductor.	List Price per 100 Bonds. Overall Length. 11 Inch.	12 Inch.	13 Inch.	14 Inch.
00	$51.40	$53.00	$54.60	$56.30
000	63.80	66.20	68.60	71.10
0000	66.50	69.50	72.50	75.60
250000	74.00	77.50	81.00	84.50
300000	84.80	89.00	93.50	98.00
400000	106.00	112.00	118.00	124.25
500000	123.75	131.25	138.75	146.25

Conductor.	List Price per 100 Bonds. Overall Length. 15 Inch.	16 Inch.	17 Inch.	18 Inch.
00	$58.00	$59.70	$61.40	$63.10
000	73.60	76.10	78.60	81.10
0000	78.70	81.80	84.90	88.00
250000	88.00	91.50	95.00	99.00
300000	102.50	107.00	111.50	116.50
400000	130.75	137.25	143.75	150.25
500000	153.75	161.25	168.75	176.25

Form BS Bonds.

For attachment to the outer side of rail head.



Form BS.

Conductor Section.	Overall Developed Length.	Formed Length.	List Price per 100.
00	7.73 in.	6 in.	$45.00
0000	8.83 ,,	7½ ,,	56.50
250000	9.82 ,,	8 ,,	65.00
300000	9.32 ,,	8 ,,	72.80
400000	11.03 ,,	8½ ,,	97.00
500000	11.50 ,,	9 ,,	120.00

BONDS, Rail.



Form BBS.

G. E. Soldered Rail Bonds (Continued).

Form BBS Bonds.

The Form BBS bond is designed for attachment to the top or the bottom of the rail base.

Conductor Section.	Overall Developed Length.	Formed Length.	List Price per 100.
00	7.73 in.	6 in.	$45.00
0000	8.83 ,,	7½ ,,	56.50
250000	9.82 ,,	8 ,,	65.00
300000	9.32 ,,	8 ,,	72.80
400000	11.03 ,,	8½ ,,	97.00
500000	11.50 ,,	9 ,,	120.00



No. 36835.

Bond Compressors.

No. 36835.	No. 1 compressor for T rails, 80 lbs. and under, complete, weight of compressor 55 lbs.	$25.00
No. 36836.	No. 2 compressor for heavy T and girder rails, complete, weight of compressor 90 lbs.	30.00
No. 39422.	Wrench for compressors	3.00
,, 43480.	Inner screw for No. 36835	10.50
,, 40294.	Foot bond screw compressor....each,	45.00
,, 40295.	Hydraulic foot bond punch, 100 tons	Prices on application.
No. 40296.	Hydraulic foot bond compressor	
,, 40297.	Hydraulic web bond compressor	
,, 40298.	Hydraulic conductor bond compressor, weight 110 lbs., capacity 15 tons	
No. 40299.	Hydraulic conductor bond compressor	

Drills.

No.		Net Price.
37647.	No. 1 track drill for T rails	$18.00
37648.	,, 2 ,, ,, ,, girder rails	18.00

Rail Grinding Machine.

	Net Price.
Rail grinding machine with 5-ft. flexible shaft....each,	$30.00
Extra flexible shafts	20.00
Emery wheel, 8-in. diam., ⅝-in. thick	.90
Carborundum wheels, 8-in. diam., ⅝-in. thick	1.60

Soldered Bond Clamps.

	Net Price.
For head of rail....each,	$1.50
For web of rail ,,	1.50

Torches.

No.		Net Price.
43688.	Gasoline torch	$23.00
43689.	Kerosene torch, with pipe connected burners	65.00
43690.	Kerosene torch with flexible hose	70.00



Telephone Booth.

BOND, Tester (see T).

BOOK, Meter Reading.

Meter Reading Book.

These books have pictures of the meter dials so arranged that the inspector can mark the position of the hands directly on the page.

No. S-667. Meter book....each, $1.25

BOOTHS, Telephone.

All styles to order. Prices on application.



Western Union Call Box.

BORDER Light Cable (see Cable).

BORING Tool (see Tool and Machine).

BOTTLE, Nursing (see Warmer, milk).

BOWLS (see Shades).

BOX Clusters (see C).

BOXES, see following headings:

Boxes, Cabinet (see Cabinets).
,, Call.
,, Conduit.
,, Cut-Out.
,, Fire Alarm.
,, Fuse.
,, Jack (see Telephones).
,, Junction (see Boxes, conduit).
,, ,, (,, ,, fuse).
,, ,, (,, Cabinets).
,, ,, (,, Cut-Outs).
,, ,, (,, Fuses).
,, ,, (,, Panels, etc.).
,, Letter.
,, Marine (see Boxes, conduit).
,, Messenger (see Boxes, call).
,, Moulding.
,, Outlet (see Boxes, conduit, and Receptacles, flush).
,, Primary (see Boxes, fuse).
,, Sand.
,, Service (see Switches, service).
,, Shunt.
,, Starting (see Reostats).
,, Subway (see Fuses).
,, Switch (see Boxes, conduit, and Switches).



No. 8B.

BOXES, Cabinet (see Cabinets).

BOXES, Call.

District Messenger Service Call Boxes.

No. 1010. Vansize return signal box..... $6.00
,, 1005. Western Union or Am. Dist. call box, one or four calls..... 2.50

In the return signal box a small bell rings during the second revolution of the circuit wheel inside, showing that the signal has been received at central office.



No. 8B. Deep.

BOXES, Conduit (see also Switches, marine).

Bossert Outlet and Junction Boxes.

No. 8B. Outlet and junction box, 4 in. diam., $1\frac{5}{8}$ in. deep.....per 100, $20.00
Four outlets in sides and five in bottom.
Outlets for $\frac{1}{2}$ in. or $\frac{3}{4}$ in conduit only.
Drilled for fixture stems No. 81 or 81A.
No. 8B. Deep box. Same as No. 8B except that it is $2\frac{1}{4}$ in. deep. For $\frac{1}{2}$-in., $\frac{3}{4}$-in. and 1-in. conduit only..... ,, 32.00
(No bottom outlets are provided in boxes arranged for 1-inch conduit.)
No. 31. Open cover..... ,, 6.00
,, 40. Closed cover..... ,, 6.00
,, 41. Cover with $\frac{3}{8}$-in. insulated bushing..... ,, 12.00
,, 62. Pol. brass cover (flush) for Federal socket, ,, 35.00
,, 63. Pol. brass cover (lapped) for Federal socket.. ,, 35.00



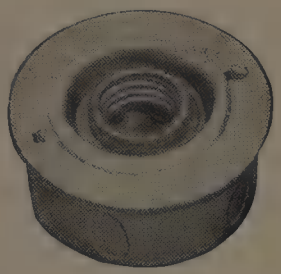
No. 62 and 58. Covers for Federal Socket.

Bossert Receptacle Boxes.

No. 17. Receptacle box, 3 in. diam., $1\frac{1}{2}$ in. deep, per 100, $22.50
Four outlets in sides.
For $\frac{1}{2}$-in. outlets only.
Takes G. E. Receptacle No. 50746.
No. 48. Flush brass cover .....per 100, 12.00
,, 49. Lapped brass cover..... ,, 12.00
(This box cannot be furnished with bottom outlets.)



No. 17.



No. 17A.



No. 8N.



No. 15.





No. 1900.

BOXES Conduit.

Bossert Receptacle Boxes (Continued).

No. 17A. Receptacle box, 3 in. diam., 1½ in. deep, per 100, $20.00
Four outlets in sides and one in bottom.
For ½-in. conduit only. Takes No. 9397 receptacle.
Drilled for fixture stems Nos. 81 or 81A.

No. 48B. Polished brass cover, flush ..... per 100, $12.00
,, 49B. Polished brass cover, lapped .... ,, 12.00
,, 50. Closed steel cover, ... ,, 6.00
,, 51. Open steel cover ..... ,, 6.00
,, 50B. Cover, with ⅜-in. ins. bushing .. ,, 12.00
,, 58. Polished brass cover, flush, for Federal socket. ..... per 100, 12.00
No, 59. Polished brass cover, lapped, for Federal socket..... per 100, 12.00
No. 8N. Receptacle box, 4 in. diam., 1⅝ in. deep, per 100, 20.00
Four side outlets for ½-in. or ¾-in. conduit only.
Not bored for fixture stems.
Takes Norbitt, Trumbull and P. and S. receptacles.
No. 53. Cover for No. 33⅛ Norbitt rosette, per 100, $6.00
,, 54. Cover for C-227 Norbitt receptacle, ,, 6.00
,, 55. Brass cover for No. 33⅛ Norbitt rosette, per 100, 20.00
No. 56. Brass cover for C-227 Norbitt receptacle, per 100, 20.00
No. 57. Steel cover for Trumbull receptacle, per 100. 6.00
No. 71. Brass cover for Trumbull receptacle, per 100, 20.00
No. 41. Cover with insulated bushing for use with with P. & S. rosettes, Nos. 400, 401 and 810 ..... per 100, 12.00
(This box cannot be furnished with bottom outlets.)

Bossert Switch, Outlet, or Junction Box.

No. 15. Switch box, 4 in. square, 1½ in. deep, per 100, $20.00
Eight outlets in sides and five in bottom for ½-in. or ¾-in. conduit only.
Drilled for fixture stems No. 81 or 81A.
No. 35. Open cover..... per 100, 8.00
,, 35A. Closed cover..... ,, 8.00
,, 36. Cover for Hart round base rotary switches, per 100, 8.00
No. 36A. Cover for Perkins round base rotary switches..... per 100, 8.00
No. 37. Cover for standard push button or rectangular base switches or flush plug receptacles..... per 100, 8.00
No. 38. Cover for 2 push button switches, ,, 16.00
,, 52. Cover with ⅜-in. insulated bushing, per 100, 12.00

Bossert Combination Gas and Electric Outlet Box.

No. 1900. Outlet box, 4 in. square, 1½ in. deep, per 100, $20.00
Eight outlets in sides and five in bottom, ½-in. or ¾-in. only.
One gas outlet in each of two opposite sides ½-in. only.
Arranged for gas elbows Nos. 90, 91, and 92.
No. 22. Open cover..... per 100, $8.00
,, 23. Closed cover..... ,, 8.00
(Gas elbows not included in price.)

BOXES, Conduit (Continued).



No. 18.

Bossert Ceiling Outlet Boxes in Terra Cotta.

No. 18. Ceiling box, 4 in. diam., $\frac{3}{4}$ in. deep ... per 100, $9.00
,, 18A. ,, ,, 4 ,, ,, $\frac{1}{2}$,, ,, ... ,, 9.00
Five outlets in bottom, for $\frac{1}{2}$-in. or $\frac{3}{4}$-in. conduit only.
Drilled for fixture stems No. 81 or 81A.
Boxes cannot be furnished with side outlets.



No. 16.

Bossert Bracket Outlet and Junction Box.

No. 16. Bracket box, $3\frac{15}{16}$ in. diam., 2 in. deep.... per 100, $20.00
Four outlets in bottom, one in top side, and two in flat side, for $\frac{1}{2}$-in. and $\frac{3}{4}$-in. conduit only.
Drilled for fixture stems No. 81 or 81A.
No. 20. Open cover ..... per 100, $6.00
,, 21. Closed cover ..... ,, 6.00

Bossert Outlet and Junction Box.

No. 11B. Box, $4\frac{11}{16}$ in. square, $1\frac{5}{8}$ in. deep ..... per 100, $28.00
Eight outlets in sides and five in bottom, for $\frac{1}{2}$-in. and $\frac{3}{4}$-in. conduit only.
Drilled for fixture stems No. 81 or 81A.
No. 33. Closed cover ..... per 100, $10.00
,, 34. Open cover ..... ,, 10.00
,, 11B. Deep, $4\frac{11}{16}$ in. square, $2\frac{1}{4}$ in. deep ..... ,, 32.00
Eight outlets in sides and five in bottom, for $\frac{1}{2}$-in., $\frac{3}{4}$-in., or 1-in. conduit only.
Drilled for fixture stems No. 81 or 81A.
No bottom outlets in boxes for 1-in. conduit.
No. 33 and No. 34 covers, above, fit this box..... per 100, $10.00
,, 43. Open lapped cover ..... ,, 11.00
,, 44. Closed lapped cover ..... ,, 11.00



No. 11B.

Bossert Gang Boxes.

Two outlets on two opposite sides for each switch.
P. B. boxes arranged for $\frac{1}{2}$-in. or $\frac{3}{4}$-in. conduit only.
F. H. and F. P. boxes arranged for $\frac{1}{2}$-in. conduit only.
For push button or rotary rectangular base switches and flush plug receptacles as follows:

		Per 100.
No. P. B.	2. Stand. gang boxes for 2 switches.....	$60.00
,, ,,	3. ,, ,, ,, ,, 3 ,, ...	90.00
,, ,,	4. ,, ,, ,, ,, 4 ,, ...	120.00
,, ,,	5. ,, ,, ,, ,, 5 ,, ...	160.00
,, ,,	6. ,, ,, ,, ,, 6 ,, ...	310.00
,, ,,	7. ,, ,, ,, ,, 7 ,, ...	500.00
,, ,,	8. ,, ,, ,, ,, 8 ,, ...	540.00
,, ,,	9. ,, ,, ,, ,, 9 ,, ...	600.00
,, ,,	10. ,, ,, ,, ,, 10 ,, ...	660.00

For Hart flush round base rotary switches as follows:

		Per 100.
No. F. H.	2. Stand. gang boxes for 2 Hart switches....	$60.00
,, ,,	3. ,, ,, ,, ,, 3 ,, ,, ...	90.00
,, ,,	4. ,, ,, ,, ,, 4 ,, ,, ...	120.00
,, ,,	5. ,, ,, ,, ,, 5 ,, ,, ...	160.00
,, ,,	6. ,, ,, ,, ,, 6 ,, ,, ...	310.00
,, ,,	7. ,, ,, ,, ,, 7 ,, ,, ...	500.00
,, ,,	8. ,, ,, ,, ,, 8 ,, ,, ...	540.00



No. 11B Deep.

For Perkins flush round base rotary switches as follows:

		Per 100.
No. F. P.	2. Stand. gang box for 2 Perkins switches...	$60.00
,, ,,	3. ,, ,, ,, ,, 3 ,, ,, ...	90.00
,, ,,	4. ,, ,, ,, ,, 4 ,, ,, ...	120.00
,, ,,	5. ,, ,, ,, ,, 5 ,, ,, ...	160.00
,, ,,	6. ,, ,, ,, ,, 6 ,, ,, ...	310.00
,, ,,	7. ,, ,, ,, ,, 7 ,, ,, ...	500.00
,, ,,	8. ,, ,, ,, ,, 8 ,, ,, ...	540.00

Prices are for gangs in one row only.



Gang Box.

BOXES, Conduit (Continued).



No. 65.

Bossert Switch Box for Non-Metallic Flexible Conduit.

No. 65. Switch box, 3⅛ in. long, 2⅛ in. wide, 3 in. deep, per 100, $24.00
Two outlets in each end and four in bottom for ⅜-in. non-metallic conduit.
Arranged for standard push button, rectangular base rotary switches, and flush plug receptacles.



No. 70.

Bossert Switch Boxes for Iron Conduit.

No. 70. Switch box, 3⅛ in. long, 2⅛ in. wide, 3½ in. deep, per 100, $28.00
One outlet in each end and two in bottom for ½-in. pipe only.
Arranged for all standard push button or rotary rectangular base switches and flush plug receptacles.

No. 1700. Switch box, 3½ in. long, 2½ in. wide, 2¼ in. deep, per 100, 27.00
Two outlets in each end of box, for ½-in. pipe only. No bottom outlets.
Arranged for Perkins round base rotary flush switches.

No. 1701. Ditto for Hart round base rotary flush switches.....per 100, 27.00



No. 1700.

Bossert Midget Push Button Box.

No. 25. Box, 2 15/16 in. long, 1¾ in. wide, 1½ in. deep, per 100, $20.00
Two outlets in bottom, one in each end and two in each side for ½-in. conduit only.

No. 26. Cover, pol. brass (unless specified) or nickel plate.....per 100, 12.00



No. 25.

Bossert Outlet Box for Combination Gas and Electric Fixtures.

No. 600. Box for brick, 1⅝ in. deep, 4 in. diam..per 100, $40.00
,, 600A. ,, ,, lath and plaster, 2¼ in. deep, 4 in. diam.....per 100, 52.00
Four outlets in sides and four in bottom, for ½-in. pipe.
Without bottom outlets if arranged for ¾-in. pipe.
Center nipple will pass ½-in. gas pipe.
Fixture stem cannot be used.

No. 31. Open cover.....per 100, 6.00



No. 600.

Bossert Square Outlet Box for Combination Gas and Electric Fixtures.

No. 1200. Box for brick, 1⅝ in. deep, 4 11/16 in. square, per 100, $46.00

No. 1200A. Box for plaster, 2¼ in. deep, 4 11/16 in. square, per 100, 58.00
Two outlets in each of four sides and four outlets in bottom, all for ½-in. conduit.
Can be furnished for ¾-in. conduit without bottom outlets.
Centre nipple will pass ¾-in. gas pipe.
Fixture stem cannot be used.

No. 34. Open cover.....per 100, 10.00
,, 43. ,, lapped cover..... ,, 11.00



No. 1200.

BOXES, Conduit (Continued).



No. 102.

Bossert Outlet and Junction Boxes with Threaded Outlets.

Round Boxes Semi-Waterproof.

No.								Per 100.
102	for brick,	$1\frac{5}{8}$	in. deep,	4	side	outlets		$54.00
102A	,, plaster,	$2\frac{1}{4}$	,, ,,	4	,,	,,		64.00
104	,, brick,	$1\frac{5}{8}$	,, ,,	3	,,	,,		46.00
104A	,, plaster,	$2\frac{1}{4}$	,, ,,	3	,,	,,		56.00
111	,, brick,	$1\frac{5}{8}$	,, ,,	2	,,	,,	at rt. angles.	38.00
111A	,, plaster,	$2\frac{1}{4}$	,, ,,	2	,,	,,	,, ,, ,,	48.00
112	,, brick,	$1\frac{5}{8}$	,, ,,	2	,,	,,	opposite	38.00
112A	,, plaster,	$2\frac{1}{4}$	,, ,,	2	,,	,,	,,	48.00
114	,, brick,	$1\frac{5}{8}$	,, ,,	1	,,	,,		30.00
114A	,, plaster,	$2\frac{1}{4}$	,, ,,	1	,,	,,		40.00

Above boxes are 4 in. diameter. Shallow box can be provided with threaded outlets for $\frac{1}{2}$-in. or $\frac{3}{4}$-in. conduit, and deep box for 1-in. conduit in addition. Can be arranged for fixture stems if desired.



No. 703.

Square Boxes Semi-Waterproof.

No.								Per 100.
703	for brick,	$1\frac{5}{8}$	in. deep,	4	side	outlets		$54.00
703A	,, plaster,	$2\frac{1}{4}$	,, ,,	4	,,	,,		64.00
704	,, brick,	$1\frac{5}{8}$	,, ,,	3	,,	,,		46.00
704A	,, plaster,	$2\frac{1}{4}$	,, ,,	3	,,	,,		56.00
711	,, brick,	$1\frac{5}{8}$	,, ,,	2	,,	,,	at rt. angles.	38.00
711A	,, plaster,	$2\frac{1}{4}$	,, ,,	2	,,	,,	,, ,, ,,	48.00
712	,, brick,	$1\frac{5}{8}$	,, ,,	2	,,	,,	opposite	38.00
712A	,, plaster,	$2\frac{1}{4}$	,, ,,	2	,,	,,	,,	48.00
715	,, brick,	$1\frac{5}{8}$	,, ,,	1	,,	,,	,,	30.00
715A	,, plaster,	$2\frac{1}{4}$	,, ,,	1	,,	,,	,,	40.00

Above boxes are $4\frac{11}{16}$ in. square. Shallow box can be provided with outlets for $\frac{1}{2}$-in. and $\frac{3}{4}$-in. conduit, and deep box for 1-in. conduit in addition. Can be arranged for fixture stem if desired.



No. 2.

Bossert Waterproof Box.

No.								Per 100.
2.	Box,	$1\frac{5}{8}$	in. deep,	4	side	outlets		$54.00
3.	,,	$1\frac{5}{8}$	,, ,,	3	,,	,,		46.00
4.	,,	$1\frac{5}{8}$	,, ,,	2	,,	,,	at right angles	38.00
5.	,,	$1\frac{5}{8}$	,, ,,	2	,,	,,	opposite	38.00
6.	,,	$1\frac{5}{8}$	,, ,,	1	,,	,,		30.00

Above boxes are 4 in. diameter. Threaded outlets can be provided for $\frac{1}{2}$-in. or $\frac{3}{4}$-in. conduit. Box is provided with a flange which allows the use of a rubber gasket which is included in price.

No. 72. Cover (closed) ..... per 100, $6.00
,, 73. Cover with threaded lug for $\frac{3}{8}$, $\frac{1}{2}$, or $\frac{3}{4}$-in. pipe, per 100, 12.00

Bossert Marine Box.

No.								Per 100.
85.	Box,	$2\frac{1}{2}$	in. deep,	4	side	outlets		$80.00
86.	,,	$2\frac{1}{2}$	,, ,,	3	,,	,,		75.00
87.	,,	$2\frac{1}{2}$	,, ,,	2	,,	,,	at right angles	70.00
88.	,,	$2\frac{1}{2}$	,, ,,	2	,,	,,	opposite	70.00
89.	,,	$2\frac{1}{2}$	,, ,,	1	,,	,,		65.00



No. 85.

Above boxes are 4 in. diameter, $4\frac{3}{4}$ in. diameter outside of flange. Threaded outlets furnished for $\frac{1}{2}$-, $\frac{3}{4}$-, or 1-in. pipe. Outlets can be provided in bottom if desired. Rubber gasket, furnished, makes box waterproof.

No. 65. Closed cover ..... per 100, $8.00
,, 66. Cover with threaded lug for $\frac{3}{8}$-, $\frac{1}{2}$-, or $\frac{3}{4}$-in. pipe, per 100, 8.00



Adjustable Cover Extension.

BOXES, **Conduit** (Continued).

Bossert Adjustable Cover Extension.

Adjustable cover extension ..... per 100, $20.00

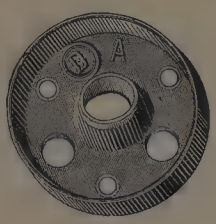
This appliance has been designed to overcome the trouble and expense to which a contractor is subjected where through carelessness of workmen or other causes outlet boxes are set so as to bring cover back of plaster line. Some engineers demand that edge of covers come flush with plaster.

The extension allows of an adjustment of 1 inch and can be used with covers Nos. 31, 35, and 22, and may be attached after plastering is finished. No screws used.

Dean Outlet Box.

No. S-668	2 wire	electric. ..... each,	$ .13
,, S-669	2 ,,	combination..... ,,	.13
,, S-670	4 ,,	electric..... ,,	.16
,, S-671	4 ,,	combination..... ,,	.16

Circular loom fasteners furnished with box.



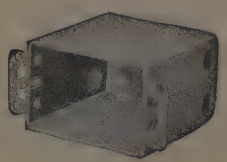
Combination. Electric.

Dean Outlet Boxes.

R. & B. Conduit Junction Boxes.

These boxes will be found especially useful where a box of large size is wanted for special work.

No.	Inside Dimensions.	Complete Box and Cover.	Box.	Cover.
5	4½ x 4½ x 2½ in.	$1.00	$ .80	$ .30
8	5½ x 5½ x 1½ ,,	1.35	1.10	.40
10	5½ x 5½ x 2⅞ ,,	1.50	1.25	.40
15	7½ x 4½ x 3½ ,,	2.00	1.80	.50
20	9½ x 5½ x 3¾ ,,	2.75	2.25	.75
22	10 x 6 x 6 ,,	4.25	3.50	1.00
25	11½ x 11½ x 4 ,,	5.00	3.60	1.80
30	14 x 9 x 4 ,,	5.00	3.60	1.80
40	18 x 10 x 4½ ,,	7.00	5.25	2.25
50	24 x 12 x 6 ,,	12.50	9.50	3.75



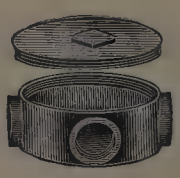
No. 37645.

G. E. Seamless Outlet Box.

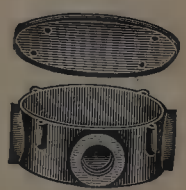
For flush pocket switches and wall receptacles.

The box is both stronger and neater than the ordinary cast-iron outlet box, being made entirely without seams, of strong, homogeneous material, with unbreakable supporting ears firmly riveted on. Its comparatively light construction economizes space, — a feature of special value in the wiring of finished buildings, — and the box is made unusually deep, so as to allow plenty of room to bring the wires in. Smoothly finished " knockout " outlet holes are provided in both bottom and ends, and the box is thoroughly japanned, inside and out, to prevent rust.

No.	Std. Pkg.	List Pr. Each.
37645. Seamless drawn steel outlet box...	50	$ .50



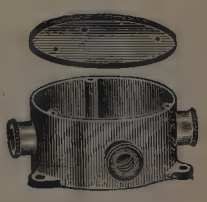
No. 433.



No. 432.

Russell Junction Boxes.

No. 433.	4-in. brass junction box with screw cover and gasket.....each,	$2.40
No. 433A.	4-in. iron junction box with screw cover and gasket.....each,	1.40
	For ½- or ¾-in. conduit. Tapping per hole.....	.05
No. 432.	4-in. brass junction box with cap cover and gasket.....each,	1.60
No. 432A.	4-in. iron junction box with cap cover and gasket.....each,	.90
	For ½-, ¾-or 1-in. conduit. Tapping per hole.....	.05
No. 454.	4-in. brass junction box with cap cover and gasket and fitted with gland outlet.....each,	1.60
	Glands extra..... ,,	.40
No. 481.	3-in. brass junction box with cap cover and gasket.....each,	1.50



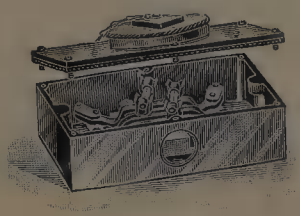
No. 454.



No. 481.



No. 482.



No. 483.

BOXES, Conduit.

Russell Junction Boxes (Continued).

		Each.
No. 481A.	3-in. iron junction box with cap cover and gasket,	$ .60
	For ½- or ¾-in. conduit.	
	Tapping per hole.....	.05
No. 482.	3-in. brass junction box with cap cover and lamp ceptacle	1.90
No. 482A.	3-in. iron junction box with cap cover and lamp receptacle	1.00
	For ½- or ¾-in. conduit.	
	Tapping per hole.....	.05
No. 483.	Brass marine junction box with glass tube fuse cut-out.....	5.50
	For ½- or ¾-in. conduit.	



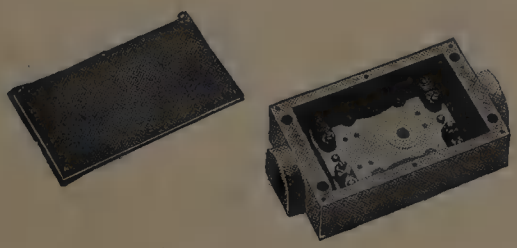
No. 24374.

G. E. Porcelain Junction Box.

This junction box is a double-pole, double-branch cut-out with porcelain cover which is securely fastened to the cut-out base by means of two screws.

It is designed for protection of 4-ampere circuits. All current-carrying parts are of ample capacity and are made of copper having a high conductivity. The screws and caps of the fuse are of brass, all of which are mounted on the porcelain base. The outside dimensions of the porcelain box are 2½ inches x 4½ inches.

24374.	Main line, double-pole, double-branch marine cut-out complete	$1.25
22563.	4-amp. glass tube fuse.....	.06



No. 22697.

G. E. W. T. Searchlight Junction Box.

		Each.
Arranged for Conduit Wiring.		
No. 22697.	Junction box complete,	$4.50
,, 25035.	Box	3.00
,, 25046.	Cover for box.....	.45
,, 25019.	Interior fitting.....	.75
Arranged for Moulding Wiring.		
No. 22573.	Junction box complete,	$5.00
,, 22557.	Box.....	3.75
,, 22574.	Cover for box	.55
,, 25019.	Interior fitting	.75

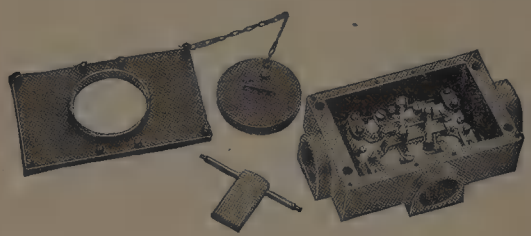


No. 22699.

G. E. W. T. Feeder Junction Box.

		Each.
Arranged for Conduit Wiring.		
No. 22699.	Junction box complete, without key.....	$6.25
No. 25032.	Box.....	3.00
,, 25045.	Cover for box, with cap,	.85
,, 22579.	Cap for cover.....	.55
,, 63766.	Key for removing cap,	.35
,, 25022.	Interior fitting.....	1.80
Arranged for Moulding Wiring.		
No. 50973.	Junction box complete, without key.....	$7.50
No. 22576.	Box	4.00
,, 22577.	Cover for box, with cap,	1.75
,, 22579.	Cap for cover	.55
,, 63766.	Key for removing cap,	.35
,, 25022.	Interior fitting.....	1.80

BOXES, Conduit (Continued).



No. 22698.

G. E. W. T. Three-way Branch Junction Box.

Arranged for Conduit Wiring.

		Each.
No. 22698.	Junction box complete, without key	$5.25
No. 25032.	Box	3.00
,, 25045.	Cover for box, with cap	.85
,, 22579.	Cap for cover	.55
,, 63766.	Key for removing cap	.35
,, 25018.	Interior fitting	.75

Arranged for Moulding Wiring.

No. 22689.	Junction box complete, without key	$6.50
No. 25020.	Box	4.00
,, 22577.	Cover for box, with cap,	1.75
,, 22579.	Cap for cover	.55
,, 63766.	Key for removing cap	.35
,, 25018.	Interior fitting	.75



No. 22696.

G. E. W. T. Four-way Branch Junction Box.

Arranged for Conduit Wiring.

		Each.
No. 22696.	Junction box complete, without key	$5.35
No. 25031.	Box	3.25
,, 25045.	Cover for box, with cap	.85
,, 22579.	Cap for cover	.55
,, 63766.	Key for removing cap	.35
,, 25018.	Interior fitting	.75

Arranged for Moulding Wiring.

No. 50967.	Junction box complete, without key	$6.75
No. 22608.	Box	4.25
,, 22577.	Cover for box, with cap	1.75
,, 22579.	Cap for cover	.55
,, 63766.	Key for removing cap	.35
,, 25018.	Interior fitting	.75



No. 40945.

G. E. W. T. Feeder Junction Box.

		Each.
No. 40945.	Water-tight feeder junction box for double conduit	$12.75
No. 42678.	Interior fitting	3.25



No. 40946.

G. E. Distribution Box.

		Each.
No. 40946.	8-way distribution box, complete, with fittings,	$30.00
No. 42679.	Interior fitting	10.50
,, 40947.	12-way distribution box, complete, with fittings,	38.75
No. 42680.	Interior fitting	14.00

BOXES, Conduit (Continued).

Renim Switch Boxes.

All leading makes of switches of the same type will fit the same box equally well.

Switches are readily adjustable for leveling face plate in case box was not set exactly plumb.

Choice of make of switch is not necessary at time of wiring, thereby saving much delay.

No " cutting-in " of attaching ears as they are placed the right distance back to allow for the lath and plastering.

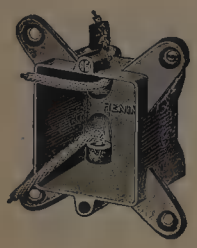
They are provided with long switch attaching screws to allow for variable thickness of plastering.

The flexible conduit is securely held in place, at the same time effecting an average saving of 1 foot of conduit on each box.

Entrance holes accurately drilled, for ¼-inch circular loom or flexduct, not cast, and unused holes may be easily sealed if desired.

Wires may be left coiled within the box thereby insuring a smooth plaster surface for the face plate.

The face plate may be moved slightly either vertically or laterally to cover break in plastering.



No. 11.

Boxes for New Work.

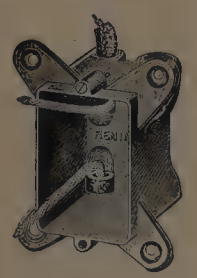
For Flush Snap Switches, Round or Square Base.

No.	Style.	Dimensions.	List.	No.	Style.	Dimensions.	List.
11	A Single	2⅞ x 2½	$ .40	14	A 4-gang	3⅛ x 10¾	$1.60
12	A 2-gang	3⅛ x 5½	.80	15	A 5-gang	3⅛ x 13¼	2.00
13	A 3-gang	3⅛ x 8⅛	1.20				

For Rotary and Push Switches and Receptacles (Rectangular Base).

No.	Style.	Dimensions.	List.	No.	Style.	Dimensions.	List.
21	B Single	3⅝ x 2	$ .40	24	B 4-gang	3⅝ x 7½	$1.60
22	B 2-gang	3⅝ x 3¾	.80	25	B 5-gang	3⅝ x 9⅛	2.00
23	B 3-gang	3⅝ x 5⅝	1.20	26	B 6-gang	3⅝ x 11	2.40

Minimum depth of partition-studs required for { Style A 1⅝ inch. ,, B 2⅜ ,,



No. 21.

Boxes for Old Work.

For Rotary and Push Switches and Receptacles (Rectangular Base).

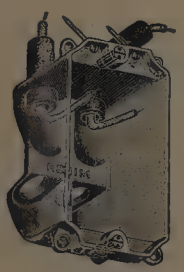
No.	Style.	Dimensions.	List.	No.	Style.	Dimensions.	List.
31	C Single	3¾ x 2	$ .50	43	D 3-gang	3⅜ x 5⅝	$1.50
				44	D 4-gang	3⅝ x 7½	2.00
41	D Single	3¾ x 2	.50	45	D 5-gang	3⅝ x 9⅛	2.50
42	D 2-gang	3⅝ x 3¾	1.00	46	D 6-gang	3⅝ x 11	3.00

For Flush Snap Switches (Round or Square Base).

No.	Style.	Dimensions.	List.
51	E Single	3½ x 2½	$ .50

Styles C and E not made in gangs.

Minimum depth of partition-studs required for { Style C 1¾ in. ,, D 2⅜ ,, ,, E 1⅞ ,,



No. 41.

Renim Outlet Boxes.

These outlet boxes are provided with conduit receiving pockets for securely holding the flexible conduit similar to the switch boxes.

The " combination " boxes are provided with a tight-fitting fibre bushing for insulating the box from the gas pipe.

Each box for " new " work is provided with an adjustable temporary cover for keeping out the plaster.

No insulating joint required on electric boxes. Attach fixtures directly with hickey.

It is impossible for the flexible conduit or wires to be pushed out of place by the plasterers, a common fault where no outlet box is used. The wires may be left coiled entirely within the box, thus insuring a smooth plaster surface about the outlet.

The " straight electric " outlet box is provided with a ⅜-inch hole tapped through solid metal ½-inch thick. The box being attached directly to the studding furnishes a solid support for the fixture entirely independent of the plastering.

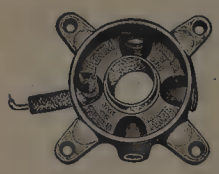
Suitable attaching screws furnished with each box.

For use with ¼-inch circular loom and flexduct.

BOXES, Conduit



No. 113.



No. 104.

Renim Outlet Boxes (Continued).

For New Work.

No.	Bracket.	Std. Pkg.	List.
112	2-wire combination	18	$ .15
113	2 ,, electric	18	.15
114	4 ,, combination	18	.20
115	4 ,, electric	18	.20

No.	Ceiling.	Std. Pkg.	List.
102	2-wire combination	12	$ .25
103	2 ,, electric	12	.25
104	4 ,, combination	12	.30
105	4 ,, electric	12	.30

For Old Work.

No.	Bracket.	Std. Pkg.	List.
122	2-wire combination	24	$ .15
123	2 ,, electric	24	.15
124	4 ,, combination	24	.20
125	4 ,, electric	24	.20



Renim Seals.

Renim Seals.

A convenient article for quickly and securely closing the unused openings in Renim switch and outlet boxes, etc.

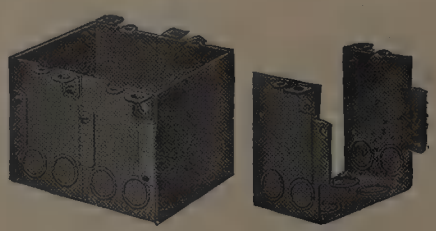
They are made of drawn steel and are put up in pasteboard boxes in lots of 100 each.

They are easily inserted with an ordinary hammer and make an absolutely waterproof joint. They may be removed by striking on the inside with a nail-set or large nail.

No. 600.....Renim seals.....per 100, $ .60

Outside diameter $\frac{9}{16}$ inch.

Type AA Union Outlet Combination Switch Boxes.



Union Outlet Combination Switch Boxes.

For new and old work, takes all makes of switches and receptacles.

Depth 3 inches, $\frac{5}{8}$-inch holes, 14 gauge steel finished in black enamel. Dimensions at bottom of single box 3 $\frac{1}{16}$ x 2 inches. Takes plate 4$\frac{1}{4}$ inches and longer. Distance between switch lug centres, 3$\frac{1}{4}$ inches. Spacing in gang boxes 1$\frac{13}{16}$ inch between centres.

The ears are made to operate on a screw pivot, in a slot, whereby the box can be adjusted to varying thicknesses of plaster in new work. These ears can also be reversed to work flush with top of box in finished work. Takes Perkins, H. & H., Diamond H, Marshall and Cutter switches; also all well-known switches and receptacles with rectangular bases. Designed whereby a 2-gang box can be converted into any number of gangs by releasing the clamping screws and inserting "spacers." These gangs are easily assembled with the aid of a screw-driver, and fit together snugly, making a perfect and solid gang box for any required number of switches.

Type AA.	Single box	each,	$ .50
	With internal clamp	,,	.60
Type AA.	2-gang box	,,	.90
	With internal clamp	,,	1.10
Type AA.	Spacer	,,	.40
	With internal clamp	,,	.50



No. 5991.



No. 5998.



No. 5950.



S-672.



No. 5. With Outside Box.

BOXES, Conduit (Continued).

Sprague Switch Boxes.

For ½-inch Flexible Metallic Conduit.

For Finished Building Work.

No.		Outside Dim. Width. In.	Length. In.	Hgt. In.	Each.
5971.	Box for 1 switch,	$2\frac{1}{4}$	$3\frac{1}{8}$	$3\frac{1}{2}$	.30
5972.	,, ,, 2 switches,	$3\frac{5}{8}$	$4\frac{1}{4}$	$3\frac{3}{4}$	.60
5973.	,, ,, 3 ,,	$3\frac{5}{8}$	6	$3\frac{3}{4}$	.90
5974.	,, ,, 4 ,,	$3\frac{5}{8}$	$7\frac{15}{16}$	$3\frac{3}{4}$	1.20
5975.	,, ,, 5 ,,	$3\frac{5}{8}$	$9\frac{5}{8}$	$3\frac{3}{4}$	1.50
5976.	,, ,, 6 ,,	$3\frac{5}{8}$	$11\frac{9}{16}$	$3\frac{3}{4}$	1.80
5977.	,, ,, 7 ,,	$3\frac{5}{8}$	$13\frac{5}{16}$	$3\frac{3}{4}$	2.10
5978.	,, ,, 8 ,,	$3\frac{5}{8}$	$15\frac{1}{16}$	$3\frac{3}{4}$	2.40

NOTE. — The above boxes are furnished with two outlets for each switch; one outlet on top and one outlet on bottom side. Suitable plugs are provided for unused outlets in these boxes. Standard face plates will fit these boxes.

For No. 14 or No. 12 Type BX Conductors.

For Finished Building Work.

No.		Width. In.	Length. In.	Hgt. In.	Each.
5991.	Box for 1 switch,	2	$3\frac{1}{8}$	$3\frac{1}{2}$	$ .30
5992.	,, ,, 2 switches,	$3\frac{5}{8}$	$4\frac{1}{4}$	$3\frac{3}{4}$	.60
5993.	,, ,, 3 ,,	$3\frac{5}{8}$	6	$3\frac{3}{4}$	.90
5994.	,, ,, 4 ,,	$3\frac{5}{8}$	$7\frac{15}{16}$	$3\frac{3}{4}$	1.20
5995.	,, ,, 5 ,,	$3\frac{5}{8}$	$9\frac{5}{8}$	$3\frac{3}{4}$	1.50
5996.	,, ,, 6 ,,	$3\frac{5}{8}$	$11\frac{9}{16}$	$3\frac{3}{4}$	1.80
5997.	,, ,, 7 ,,	$3\frac{5}{8}$	$13\frac{5}{16}$	$3\frac{3}{4}$	2.10
5998.	,, ,, 8 ,,	$3\frac{5}{8}$	$15\frac{1}{16}$	$3\frac{3}{4}$	2.40

NOTE. — The above boxes are furnished with three outlets for each switch: one outlet on top and two outlets on bottom side. Suitable plugs are provided for unused outlets in these boxes. Standard face plates will fit these boxes.

Sprague Door Switch Box.

This is an ideal box for door switches. It is light in weight and substantially constructed. For new building work.

Outside dimensions: $1\frac{1}{4}$ inches wide, $2\frac{9}{16}$ inches deep and $3\frac{3}{4}$ inches long.

No. 5950. Door switch box for ½-in. flexible metallic conduit, each, $ .26

No. 5951. Door switch box for No. 14 BX conductors .....each, .26

BOXES, Cut-Out (see Cabinets, Fuses, Cut-Outs, Switch, section, etc.).

C-S Railway Cut-Out Boxes.

These metal boxes take N. E. Code standard enclosed, 600-volt fuses.

No. 2463. 100-amps., complete without fuse.....each, $9.00

No. 2464. 200-amps., complete without fuse.....each, 15.00

No. 2465. 400-amps., complete without fuse.....each, 30.00

BOXES, Fire Alarm.

Fire Alarm Boxes.

No. 5. Fire alarm box only for inside work.....each, $5.00

No. 5. Fire alarm box fitted with outside box, Yale lock and key.....each, 12.50

Outside box only..... ,, 7.50

Same box with upper half of glass for emergency calls.....each, 8.50

This No. 5 box superficially has the appearance of a district messenger call box, but the clock mechanism inside is very different. The

(*Continued on next page.*)



Style A Box.

BOXES, Fire Alarm.

Fire Alarm Boxes (Continued).

movement is made up with extra heavy wheels and plates, and the spring is of extra finish and strength. This box does the best of work and there are over 20,000 in actual service, giving perfect satisfaction. Regular finish red japan and gilt stenciling.

Style A Fire Alarm Box.

Style A.....box.....each, $ .70

Breaking the glass releases a spring, making contact and ringing in the alarm.



No. 51874.

BOXES, Fuse (see Fuses, Cut-outs, Cabinets, Panelettes, etc.).

G. E. Primary Switch and Fuse Box.

No. 51874. Fuse box complete, S. P., each, $1.50

This box is made of porcelain, shaped like an insulator so that wire may be brought directly to the box and then run to transformer rendering an additional insulator unnecessary. While the plug is arranged so it will take common fuse wire we recommend fuses specially made for it, since the rating of the fuse depends on both alloy used and the length.

Fuses 1 to 30 amps. for above.....each, $ .03

No. 8228. S. P. primary switch and fuse box, suitable for 3000 to 30,000 watt transformers, 1,040 or 2,080 volts primary, each, 3.00



No. 8228.

Brodie Primary Switch and Fuse Box No. H-674.

On all porcelain cut-outs with flange for attaching to pole or cross arm, complete with plug, single pole.....each, $2.00



Brodie Switch and Cut-Out Box.

BOXES, Jack (see Telephones).

BOXES, Junction (see Boxes, conduit).
(,, ,, fuse).
(,, Cabinets).
(,, Cut-Outs).
(,, Fuses).
(,, Panels, etc.).

BOXES, Letter.

Metal Letter Boxes.

Bronze letter box, 13½ x 4 inches.
Mail opening with drop, 3⅝ inches.
Name panel opening, 2½ inches.
Heavy bevel plate glass, 2 x 2½ inches.
Four tumbler lock with two keys.

Style No. 98.

Unmounted letter box	each,	$2.70
1-section box, mounted	,,	4.00
2 ,, ,, ,,	,,	6.60
3 ,, ,, ,,	,,	9.90
4 ,, ,, ,,	,,	13.20

Mounted boxes are on wood panels, other styles to order. Oxidized finish, extra 10 per cent.

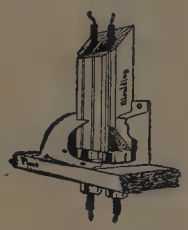


No. 98.

BOXES, Marine (see Boxes, conduit).

BOXES, Messenger (see Boxes, call).

BOXES, Moulding.

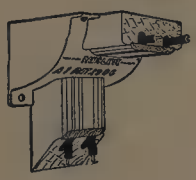


Style A No. 1. Regular.

Gleason Moulding Boxes.

These boxes are designed for use with wooden mouldings at the junction of walls and ceilings, without exposing the usual splices, torn paper, or broken woodwork and plaster. Made for all standard sizes of two- and three-wire mouldings, having grooves from one fourth to one inch diameter by eighths.

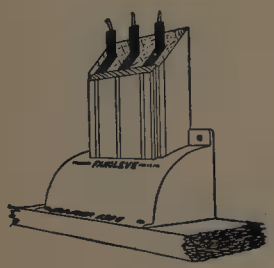
Made in two patterns — "Regular," with one opening for moulding and "Angle," with two openings for moulding at right angles. In ordering state which is wanted.



Style A No. 1. Angle.

Boxes for Two-Wire Mouldings (Style A).

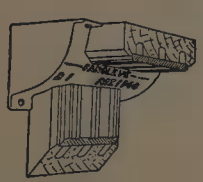
2-Wire Mouldings, Style A.	Size of Grooves in Moulding.	Number of Conductors.	Size of Wire B. & S. Gauge.	Number of Circuits.	Regular Pattern, Price, Each.	Angle Pattern, Price, Each.
No. 1	$\frac{1}{4}$ in.	2	14-12	1	$ .20	$ .20
,, 2	$\frac{1}{4}$,,	4	14-12	2	.35	.35
,, 3	$\frac{1}{4}$,,	6	14-12	3	.50	.50
,, 4	$\frac{1}{4}$,,	8	14-12	4	.65	
,, 5	$\frac{1}{4}$,,	10	14-12	5	.80	
,, 6	$\frac{1}{4}$,,	12	14-12	6	.95	.95
,, 11	$\frac{3}{8}$,,	2	10-8	1	.30	.30
,, 12	$\frac{3}{8}$,,	4	10-8	2	.45	.45
,, 13	$\frac{3}{8}$,,	6	10-8	3	.60	
,, 21	$\frac{1}{2}$,,	2	6-4	1	.40	.40
,, 22	$\frac{1}{2}$,,	4	6-4	2	.60	
,, 31	$\frac{5}{8}$,,	2	2-1	1	.50	.50
,, 41	$\frac{3}{4}$,,	2	0-00	1	.60	.60
,, 51	$\frac{7}{8}$,,	2	000	1	.70	.70
,, 61	1 ,,	2	0000	1	.80	.80



Style B No. 1. Regular.

Boxes for Three-Wire Mouldings (Style B.)

3-Wire Mouldings, Style B.	Size of Grooves in Moulding.	Number of Conductors.	Size of Wire B. & S. Gauge.	Number of Circuits.	Regular Pattern, Price, Each.	Angle Pattern, Price, Each.
No. 732	$\frac{7}{32}$ in.	3	14	1	$ .30	$ .30
,, 733	$\frac{7}{32}$,,	6	14	2	.45	
,, 1	$\frac{1}{4}$,,	3	14-12	1	.30	.30
,, 2	$\frac{1}{4}$,,	6	14-12	2	.45	.45
,, 3	$\frac{1}{4}$,,	9	14-12	3	.60	.60
,, 11	$\frac{3}{8}$,,	3	10-8	1	.40	.40
,, 12	$\frac{3}{8}$,,	6	10-8	2	.60	
,, 13	$\frac{3}{8}$,,	9	10-8	3	.75	
,, 21	$\frac{1}{2}$,,	3	6-4	1	.50	.50
,, 22	$\frac{1}{2}$,,	6	6-4	2	.65	
,, 31	$\frac{5}{8}$,,	3	2-1	1	.60	.60
,, 41	$\frac{3}{4}$,,	3	0-00	1	.70	.70
,, 51	$\frac{7}{8}$,,	3	000	1	.80	.80
,, 61	1 ,,	3	0000	1	.90	.90



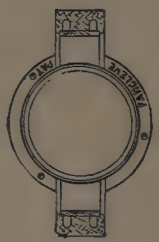
Style B No. 1. Angle.



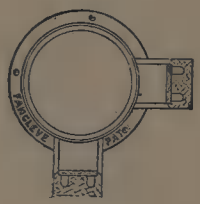
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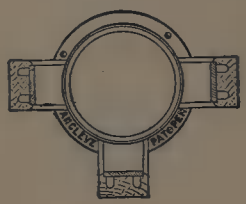
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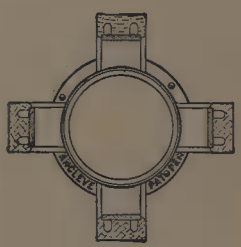
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No. 103.



No. 104.



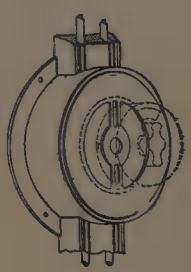
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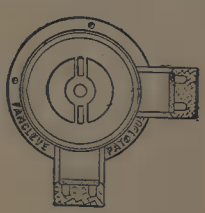
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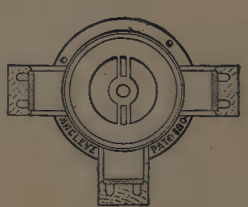
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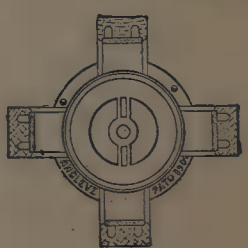
No. 152.



No. 153.



No. 154.



No. 155.

BOXES, Moulding.

Gleason Round Pattern Moulding Boxes.

These fittings form a junction box for mouldings meeting at any angle such as would require the use of a tee, elbow, cross, coupling, or cap, and furnish a substantial base or mount for such appliances as bracket or pendant tubes, wall sockets, surface switches, rosettes, or receptacles.

Stove bolts with lock nuts fasten these appliances to the box by passing through the radial slots which are of sufficient length to accommodate the distances between the screw holes of all fittings of this class, and the concentric openings are concealed by the fitting mounted thereon. Bracket and pendant tubes ($\frac{1}{8}$ I. P. S. or $\frac{3}{8}$ brass pipe, size 27 threads to the inch) screw into the orifice tapped in the centre of the box, and a small shallow canopy may be used to cover the concentric openings, as the splices are placed within the box rather than in the canopy. Stove bolts, nuts, and wood screws furnished with each. There are two sizes of these boxes. The most generally used is $3\frac{1}{2}$-inch diameter of face, tapped $\frac{1}{8}$ I. P. S. The other is 5-inch diameter of face, tapped $\frac{1}{4}$ inch I. P. S., for use with heavier fixtures. The inlets are made for two-wire moulding with $\frac{1}{4}$-inch grooves.

Both sizes can be furnished with blank face where a junction only is required and nothing to be mounted. These goods are also convenient for covering a concealed outlet and transferring by moulding to a different location.

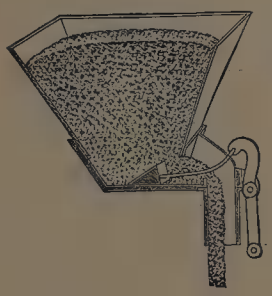
Blank Styles.

No.					Each.
100...	$3\frac{1}{2}$-in.	blank	cover.....		$ .30
101...	$3\frac{1}{2}$	,,	,,	cap.....	.30
102...	$3\frac{1}{2}$	,,	,,	coupling	.30
103...	$3\frac{1}{2}$	,,	,,	elbow.....	.30
104...	$3\frac{1}{2}$	,,	,,	tee.....	.30
105...	$3\frac{1}{2}$	,,	,,	cross.....	.30
110...	5	,,	,,	cover.....	.45
111...	5	,,	,,	cap.....	.45
112...	5	,,	,,	coupling	.45
113...	5	,,	,,	elbow.....	.45
114...	5	,,	,,	tee.....	.45
115...	5	,,	,,	cross.....	.45

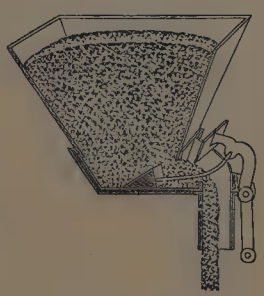
Universal Styles.

No.					Each.
150...	$3\frac{1}{2}$ in.	universal	cover		$ .35
151...	$3\frac{1}{2}$	,,	,,	cap.....	.35
152...	$3\frac{1}{2}$	,,	,,	coupling..	.35
153...	$3\frac{1}{2}$	,,	,,	elbow....	.35
154...	$3\frac{1}{2}$	,,	,,	tee.....	.35
155...	$3\frac{1}{2}$	,,	,,	cross.....	.35
160...	5	,,	,,	cover	.50
161...	5	,,	,,	cap.....	.50
162...	5	,,	,,	coupling..	.50
163...	5	,,	,,	elbow....	.50
164...	5	,,	,,	tee.....	.50
165...	5	,,	,,	cross.....	.50

BOXES, Outlet (see Boxes, conduit, and Receptacles, flush and stage).
BOXES, Primary (see Boxes, fuse).
BOXES, Sand.



No. 4. Sand Box.



No. 7. Sand Box.

Ham Sand Boxes.

No. 4.

The No. 4 Ham Sand Box delivers sand at each stroke on the lever. It has a ventilating spout to prevent moisture going to the sand.

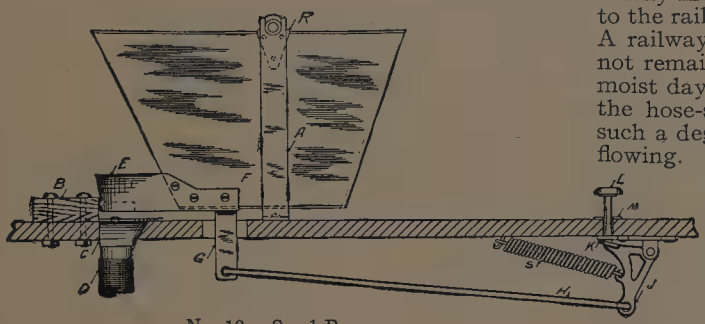
No. 4. Without hopper or hose spout.....each, $4.30
No. S-675. Hopper only..... ,, .90
,, S-676. 32-in. hose spout, ,, 1.00

No. 7.

The No. 7 Ham Sand Box delivers a steady stream of sand as long as the lever is pressed with the foot. It has a movable dam of bronze which drops back to its normal position, instantly stopping the flow when not wanted. Sticks and stones will not interfere with its operation.

No. 7. Without hopper or hose spout.....each, $5.00
No. S-677. Hopper only..... ,, .90
,, S-676. 32-in. hose spout., ,, 1.00

No. 10.



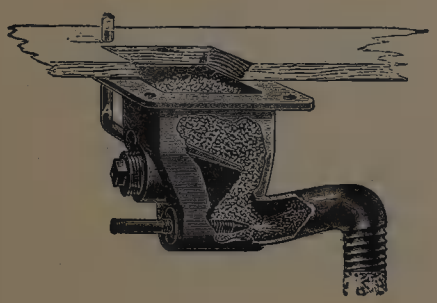
No. 10. Sand Box.

Any kind of sander will deliver the sand to the rail as long as the sand remains dry. A railway man knows that the sand will not remain dry in a sand-box on a wet or moist day, as moisture is bound to ascend the hose-spout and dampen the sand to such a degree as to prevent the sand from flowing. With this sander we guarantee to work all of the sand out of the box regardless of what the conditions may be. Even if the sand is frozen in the box, the operation of the sander is such that it will break up and work the frozen sand out.

The sand-box is suspended and swings back and forth instead of being fastened to the floor. The forward movement is suddenly arrested by the block "B" which is bound to force the sand from the box.

No. 10.....Sand box.....each, $7.00

Air-Sander.



Air Sander.

The Ham Air Sander is largely successful, owing to the superior ventilating features. Moisture will follow up the sand spout and dampen the sand unless some provision is made for ventilation. In this you will note that a shelf is provided in the box to prevent sand from packing in bottom of box, and underneath the shelf is an empty space which is provided with a pipe "A" extending up through car floor. This acts as a chimney or escape for any moisture or condensation to escape, thus overcoming one of the greatest troubles in air-sanders. We believe it is the best air-sander on the market for either steam or electric railways.

They have been thoroughly tested on many roads for several years, and are giving the best of satisfaction.

No. S-678. Air-sander traps and fittings only.....each, $3.80
No. S-679. Air valve..... ,, 2.50
,, S-676. 32-in. hose spout, ,, 1.00

BOXES, Service (see Switches, service).
BOXES, Shunt.

Street Light Shunt Coil.

This box contains a shunt coil which automatically takes the place of a burned out incandescent lamp when installed in a street series incandescent circuit.

It contains no moving parts, it is instantaneous in its action, and it imposes a counter electromotive force equal to or slightly greater than that corresponding to the lamp which has been destroyed. The percentage of current consumed by the coil when not operative is so small as to be negligible. State voltage and candle-power of lamps and alternations, in ordering.



Shunt Box.

No.	Candle-Power of Lamps.	Voltage of Lamps.	Voltage of Circuit.	Alts.	List Each.
704	25 to 50	50	1000	7200	$4.20
705	25 ,, 50	100	1000	7200	4.86
704	25 ,, 50	50	2000	7200	4.20
705	25 ,, 50	100	2000	7200	4.86
702	25 ,, 50	50	1000	16000	3.90
703	25 ,, 50	100	1000	16000	4.50
702	25 ,, 50	50	2000	16000	3.90
703	25 ,, 50	100	2000	16000	4.50

BOXES, Starting (see Rheostats).
BOXES, Subway (see Fuses).
BOXES, Switch (see Boxes, conduit, and Switches).
BRACES, Bit (see Tool, boring, and Drills, breast).

Amidon Corner Braces.



Amidon Corner Brace.

These braces are particularly adapted for electrical work for boring in corners, near floors, etc. (For bits, etc., see B.)

No. S-680..... 8-in. swing.....each, $5.00
,, S-681.....10 ,, ,, ... ,, 5.50

Barber Improved Ratchet Braces.

The sweep is made of steel, the jaws are forged steel, the heads and handles are cocobola and the brace is heavily nickel plated. (For bits, etc., see B.)

No. 31.....12-in. sweep.....per doz., $39.00
,, 32.....10 ,, ,, ... ,, 36.00
,, 33..... 8 ,, ,, ... ,, 33.00

BRACES, Cross Arm.

Cross Arm Braces.



Ratchet Brace.

Standard cross arm braces are approximately $1\frac{1}{4}$ x $\frac{1}{4}$ inches cross section and will be furnished either plain or galvanized and with or without lags, bolts, and washers.

The regular size commonly used is 28 inches long, and when sold complete in sets should have 2 carriage bolts, 4 x $\frac{3}{8}$, with washers, and one lag screw, 4 x $\frac{1}{2}$, with each pair of braces.

The weight per set is approximately $4\frac{1}{4}$ pounds. If wanted without the bolts, etc., order by the hundred pieces.

If wanted full $1\frac{1}{4}$ x $\frac{1}{4}$ inches in cross section order as " $1\frac{1}{4}$ x $\frac{1}{4}$ inches full."

Sizes other than 28 inches not kept in stock.



Standard Cross Arm Brace.

No.	Per 100 Pieces. Plain.	Per 100 Pieces. Galv.	Per 100 Sets. Plain.	Per 100 Sets. Galv.
S-682. 20-in. braces,	$6.10	$7.80	$17.04	$22.20
S-683. 22 ,, ,,	6.70	8.60	18.24	23.80
S-684. 24 ,, ,,	7.30	9.40	19.44	25.30
S-685. 26 ,, ,,	7.90	10.20	20.64	26.80
S-686. 28 ,, ,,	8.50	10.90	21.84	28.30
S-687. 30 ,, ,,	9.10	11.70	23.04	29.90



No. 1.



No. 2.



No. 3.



No. 4.



No. 5.



No. 7.



No. 8.

BRACES, Cross Arm.

Cross Arm Braces (Continued).

The following table gives the approximate weight of the various sizes of braces per 1,000 pieces.

Size, In.	Weight per 1000 Pieces. 20 In. Lbs.	22 In. Lbs.	24 In. Lbs.	26 In. Lbs.	28 In. Lbs.	30 In. Lbs.	32 In. Lbs.
1 x $\frac{3}{16}$	1000	1100	1200	1300	1400	1500	1600
$1\frac{3}{16}$ x $\frac{3}{16}$	1200	1320	1440	1560	1680	1800	1920
$1\frac{1}{4}$ x $\frac{3}{16}$	1250	1375	1500	1625	1750	1875	2000
$1\frac{7}{32}$ x $\frac{7}{32}$	1420	1560	1700	1840	1980	2120	2260
$1\frac{1}{4}$ x $\frac{1}{4}$	1670	1835	2000	2165	2335	2500	2665
$1\frac{1}{2}$ x $\frac{5}{16}$	2600	2860	3120	3380	3640	3900	4160
$1\frac{1}{2}$ x $\frac{3}{8}$	3080	3390	3700	4010	4320	4630	4940

We are prepared to furnish estimates on all styles of special angle iron cross arm braces on receipt of specifications.

BRACKET Arms (see A).

BRACKET Hanger (see Suspensions).

BRACKETS, see following headings:

Brackets, Adjustable.
,, Angle Change (see Fixtures, pole and wall).
,, Arc (see Fixtures, pole and wall).
,, Brass.
,, Brass Side.
,, Cast Scroll (see Fixtures, pole and wall).
,, Cord (see Trimmings, car).
,, Flexible.
,, House.
,, Inner Rope (see Fixtures, pole and wall).
,, Iron.
,, Lodge (see Fixtures, pole and wall).
,, Mammoth(see Fixtures, pole and wall).
,, Mansion (see Fixtures, pole and wall).
,, Plain Arc (see Fixtures, pole and wall).
,, Pole (see Brackets wood, also Fixtures, pole and wall).
,, Power House (see Fixtures, pole and wall).
,, Spare Lamp.
,, Station (see Fixtures, pole and wall).
,, Street or Pole (see Fixtures, street).
,, Street Railway (see Arms, bracket).
,, Swing (see Fixtures and Brackets, brass).
,, Telephone.
,, Wood.
, White's Standard Adjustable (see Fixtures).

BRACKETS, Adjustable (see Fixtures).

Faries Adjustable Brackets.

Prices do not include shade, lamp, socket, or cord. Canopies will be furnished when desired (see C) for Nos. 1, 2 and 3, at extra charge.

	Each.
No. 1. $\frac{3}{8}$-in. tubing, 16 in. long, pol. brass,	$ .60
,, 1. $\frac{3}{8}$,, ,, 16 in. long, ox. copper,	.80
Has one section only.	
No. 2. $\frac{3}{8}$-in. tubing, 24 in. long, pol. brass,	.70
,, 2. $\frac{3}{8}$,, ,, 24 in. long, ox. copper,	.90
Has one section only.	
No. 3. $\frac{3}{8}$-in. tubing, 24 in. long, pol. brass,	1.25
,, 3. $\frac{3}{8}$,, ,, 24 in. long, ox. copper,	1.55
Has a second section hinged to the first.	
No. 4. $\frac{1}{2}$-in. tubing, 40 in. long, pol. brass,	1.60
,, 4. $\frac{1}{2}$,, ,, 40 in. long, ox. copper,	1.90
Has a second section hinged to the first.	
No. 5. $\frac{1}{2}$-in. tubing, 5 ft. long, pol. brass,	2.40
,, 5. $\frac{1}{2}$,, ,, 5 ft. long, ox. copper,	2.70

No. 5 has an iron bracket which screws to the wall, and is made in two parts so that the outer one swings horizontally.

No. 7. $\frac{1}{2}$-in. tubing, 5 ft. long, pol. brass,	$5.00
,, 7. $\frac{1}{2}$,, ,, 5 ,, ,, ox. copper,	4.50
,, 8. $\frac{3}{8}$,, ,, 3 ,, ,, pol. brass,	3.75
,, 8. $\frac{3}{8}$,, ,, 3 ,, ,, ox. copper,	3.35



No. 14.



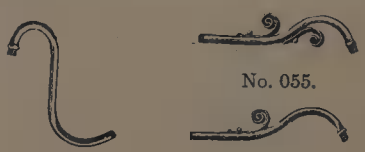
No. 15.



No. 20.



No. 045. No. 046. No. 047.



No. 055.

No. 048. No. 056.



No. 057. No. 058. No. 059.



No. 060. No. 061.



No. 062. No. 063.



No. 065.

BRACKETS, Adjustable.

Faries Adjustable Brackets (Continued).

Nos. 7 and 8 have brackets which screw to the wall and are made in two parts, so that the outer parts swing horizontally in any direction. In the oxidized copper finish the wall bracket is of cast iron, while in the polished brass fixture it is made of brass; this also applies to Nos. 15 and 20.

No. 14. 22-in. long, pol. brass.....each, $1.10
,, 14. 22 ,, ,, ox. copper..... ,, 1.30

No. 14 has a single arm which can be raised or lowered or swung to either side. A canopy may be used. (See C.)

No. 15. 34-in. long, pol. brass..... $3.25
,, 15. 34 ,, ,, ox. copper..... 2.85

Wall bracket of No. 15 swings horizontally, increasing the scope of adjustment as compared with No. 14.

No. 20. 55-in. long, pol. brass..... $4.50
,, 20. 55 ,, ,, ox. copper..... 4.00

No. 20 is the same style as No. 15, except that it is longer and larger in proportion.

BRACKETS, Angle Change (see Fixtures, pole and wall).

BRACKETS, Arc (see Fixtures, pole and wall, and Poles).

BRACKETS, Brass.

Side Brackets, without Bracket Plates.*

(See also Fixtures, Standards, Ceiling Lights, Plates, Canopies, etc.)

Size of tubing is ⅜-inch brass measurement.

No. 045.....per 100, $16.00
,, 046..... ,, 12.00
,, 047..... ,, 30.00
,, 048..... ,, 30.00
,, 055..... 6 in..... ,, 35.00
,, 055.....10 ,, ... ,, 40.00
,, 056..... 6 ,, ... ,, 25.00
,, 056.....10 ,, ... ,, 30.00
,, 057..... ,, 35.00
,, 058..... ,, 30.00
,, 059..... ,, 30.00
,, 060..... ,, 10.00
,, 061..... 4 in..... ,, 14.00
,, 061..... 6 ,, ... ,, 15.00
,, 061..... 8 ,, ... ,, 18.00
,, 061.....10 ,, ... ,, 20.00
,, 062..... ,, 35.00
,, 063..... 4 in..... ,, 14.00
,, 063..... 6 ,, ... ,, 15.00
,, 063..... 8 ,, ... ,, 18.00
,, 063.....10 ,, ... ,, 20.00
,, 065..... 4 ,, ... ,, 14.00
,, 065..... 6 ,, ... ,, 15.00
,, 065..... 8 ,, ... ,, 18.00
,, 065.....10 ,, ... ,, 20.00

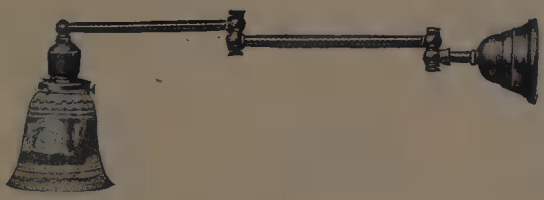
* See Plates, for the various styles of bracket plates that can be furnished with these brackets.



No. 50.



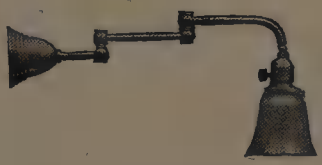
No. S-100.



No. 51.



No. S-101.



No. S-102.



No. S-103.



No. S-105.



No. S-104.



No. S-106.



No. S-108.



No. S-107.

BRACKETS, Brass Side.

Electric Side Brackets.

Prices given are for side brackets without sockets, shades, or wiring. Finishes other than those listed will be furnished to order at short notice.

All extensions are measured from wall to nozzle of bracket. Oxidized copper, acid bronze, and nickel finishes are 10% extra.

No. 50. Pol. brass, 1 light.....each, $1.50
Single swing.
Extends 14 in.

No. 51. Pol. brass, 1 light.....each, 3.00
Double swing.
Extends 28 in.

No. S-100. Matt gilt and gold, 1 light, each, .75
Ditto br. brass. ,, .75
Extends 8 in.

No. S-101. Pol. brass, 1 light.....each, 1.50
Ditto br. brass.. ,, 1.50
Single swing, $\frac{7}{16}$ in. tube.
Extension, 12 in.

No. S-102. Pol. brass, 1 light.....each, 3.00
Ditto br. brass.. ,, 3.00
Double swing, $\frac{7}{16}$-in. tube.
Extension, 17 in.

No. S-103. Pol. brass, 1 light.....each, .60
Ditto br. brass.. ,, .60
$\frac{7}{16}$-in. tube.
Extension, 6 in.

No. S-104. Pol. brass, 1 light.....each, 2.00
Ditto br. brass... ,, 2.00
Single swing.
Diamond tube.
Extension, 13 in.

No. S-105. Pol. brass, 1 light.....each, 1.15
Ditto br. brass.. ,, 1.15
Diamond tube.
Extension, 8½ in.

No. S-106. Polished brass, 1 light each, 1.00
Ditto br. brass, ,, 1.00
$\frac{7}{16}$ in. tube.
Extends 8½ in.

No. S-107. Pol. brass, 1 light.....each, 1.25
Ditto br. brass, ,, 1.25
$\frac{7}{16}$ in. tube.
Extends 6½ in.

No. S-108. Pol. brass, 1 light.....each, .40
Ditto br. brass, ,, .40
$\frac{7}{16}$ in. tube.
Extends 7 in.



No. S-109.



No. S-110.



No. S-111.



No. S-113.



No. S-115.



No. S-120.



No. 154.



No. 167½.



No. 168½.



No. 171.

BRACKETS, Brass Side.

Electric Side Brackets (Continued).

No. S-109. Polished brass, 1 light.....each, $1.75
Ditto brushed brass, each, 1.75
Ditto wrought iron, each, 1.75
Extends 6½ in.

No. S-110. Polished brass, 1 light.....each, .40
Ditto brushed brass, each, .40
$\frac{7}{16}$ in. tube.
Extends 4 in.

No. S-111. Polished brass, 1 light.....each, .75
Ditto brushed brass, each, .75
$\frac{7}{16}$ in. tube.
Extends 5 in.

No. S-113. Brushed brass and black, 1 light, each, .80
$\frac{7}{16}$ in. tube.
Extends 5 in.

No. S-115. Rich gilt, 1 light, each, .50
Ditto brushed brass, each, .50
½ in. tube.
Extends 5 in.

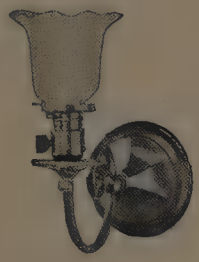
No. S-120. Rich gilt, 1 light, each, 5.00
Ditto brushed brass, each, 5.00
Extends 6 in.

No. 154. Polished brass, 1 light.....each, 1.50
Extends 7½ in.

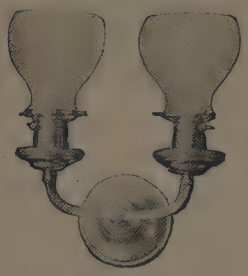
No. 167½. Polished brass, 1 light.....each, 1.00
Extends 7½ in.

No. 168½. Polished brass, 2 light.....each, 1.75
Ditto brushed brass, each, 1.75
Extends 5 in.
Spread 5 in.

No. 171. Polished brass, 2 light.....each, 3.50
Ditto brushed brass, each, 3.50
Extends 8½ in.
Spread 12 in.



No. 3318.



No. 3436.



No. 3442.



No. 3967.



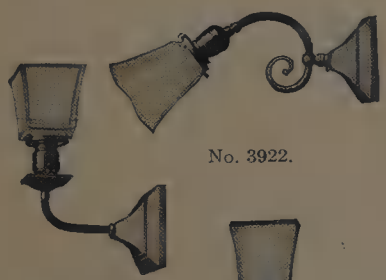
No. 3864.



No. 2083.



No. 2221.

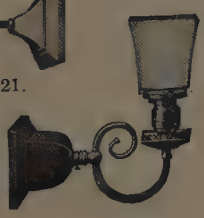


No. 3922.

No. 3921.



No. 3923.



No. 3924.



No. 3925.

BRACKETS, Brass Side.

Electric Side Brackets (Continued).

No. 3318. Brushed brass, 1 light.....each, $2.00
Hexagonal tube and canopy.
Extends 9 in.

No. 3436. Brushed brass and black, 2 light, each, 2.50
Square tube.
Extends 5 in.
Spread 10 in.

No. 3442. Brushed brass and black, 1 light, each, 2.20
Square tube.
Extends 9 in.

No. 3967. Brushed brass and black, 1 light, each, 1.65
½ in. tube.
Extends 7 in.
Back only (No. 39) for above 4¼ in. diameter can be used with any tube and will cover outlet box ..each, 1.00

No. 3864. Brushed brass and black, 1 light, each, 1.30
Hexagonal tube and canopy.
Extends 7 in.

No. 2221. Brushed brass, 1 light.....each, .75
Extends 7½ in.

No. 2083. Brushed brass, 2 light.....each, 1.50
Extends 7½ in.

No. 3921. Brushed brass, 1 light, with plate, each, 1.75
Square tube and canopy.
Extends 7 in.

No. 3922. Brushed brass, 1 light.....each, 2.30
Square tube and canopy.
Extends 10 in.

No. 3923. Brushed brass, 1 light, with plate, each, 1.60
Diamond tube.
Extends 7 in.

No. 3924. Brushed brass, 1 light, with plate, each, 2.70
Square tube and canopy.
Extends 10 in.

No. 3925. Brushed brass, 1 light, with plate, and cover...each, 3.40
Square tube and canopy.
Extends 12 in.



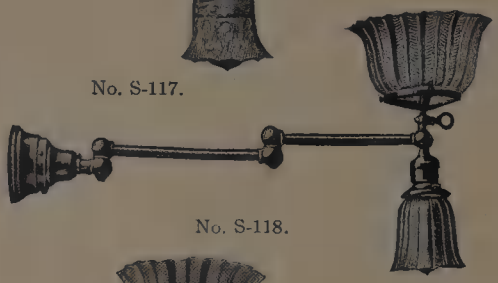
No. 39.



No. 39A.



No. S-117.



No. S-118.



No. S-119.

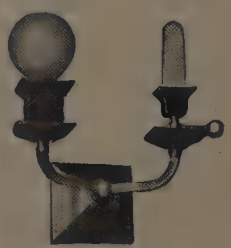
No. S-122.



No. S-123.



No. 3871.



No. 3842.



No. 3843.

BRACKETS, **Brass Side** (Continued).

Combination Gas and Electric Side Brackets.

No. 39. Polished brass, each, $1.10
Ditto brushed brass, each, 1.10
1 gas, 1 electric.
Extends 5½ in.
With wire and joint.

No. 39A. Polished brass, each, 1.10
Ditto brushed brass, each, 1.10
1 gas, 1 electric.
Extends 5½ in.
With wire and joint.

No. S-117. Rich gilt .....each, 3.50
Ditto brushed brass, each, 3.50
1 gas, 1 electric.
Single swing.
Extends 15 in.
No wire or joint.

No. S-118. Rich gilt .....each, 5.25
Ditto brushed brass, each, 5.25
1 gas, 1 electric.
Double swing.
Extends 23 in.
No wire or joint.

No. S-119. Rich gilt .....each, 3.50
Ditto brushed brass, each, 3.50
1 gas, 1 electric.
Single swing.
Extends 19 in.
No wire or joint.

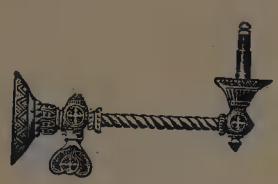
No. S-122. Polished brass, each, 2.75
1 gas, 1 electric.
Extends 5 in.
Spread 9 in.
No wire or joint.

No. S-123. Polished brass, each, 2.75
1 gas, 1 electric.
Extends 13 in.
No wire or joint.

No. 3871. Rich gilt.....each, 1.85
Ditto brushed brass, each, 1.85
1 gas, 1 electric.
Extends 7 in.
Spread 13 in.
No wire or joint.

No. 3842. Brushed brass, each, 4.75
1 gas, 1 electric.
Extends 10 in.,
Spread 9 in.
No wire or joint.

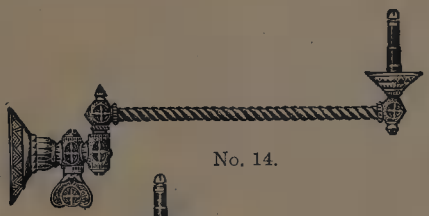
No. 3843. Brushed brass, each, 6.50
1 gas, 1 electric.
Extends 8 in.,
Spread 12 in.
No wire or joint.



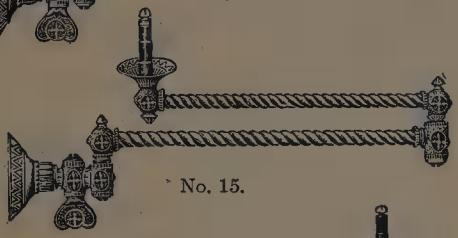
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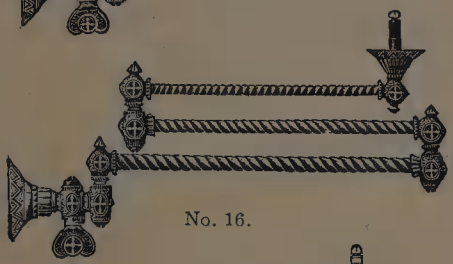
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No. 14.



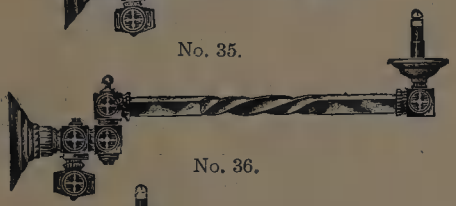
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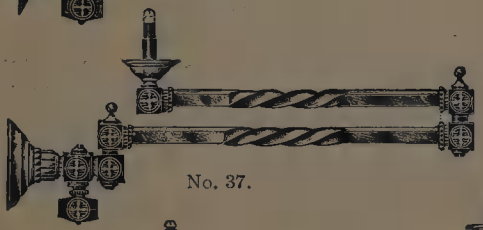
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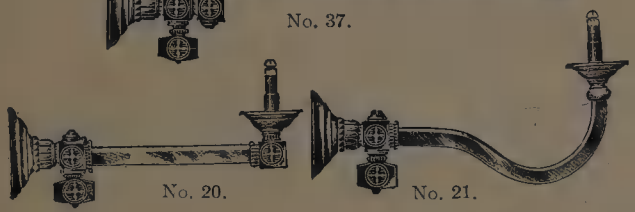
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No. 36.

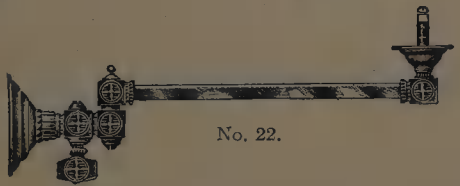


No. 37.



No. 20.

No. 21.



No. 22.

BRACKETS, Brass Side (Continued).

Gas Side Brackets.

Prices include back plate, cup, pillar, and tip, gilt finish. All listed are one-light brackets.

No. 8. Stiff rope bracket, each, $ .28
Extends 6 in.

No. 10. Stiff curve rope bracket . . . . . each, .36
Extends 7½ in.

No. 14. 1-swing rope bracket . . . . . each, .40
Extends 10½ in.

No. 15. 2-swing rope bracket . . . . . each, .64
Extends 20 in.

No. 16. 3-swing rope bracket . . . . . each, 1.00
Extends 28 in.

No. 35. Stiff square twist bracket polished, each, .60
Extends 7 in.

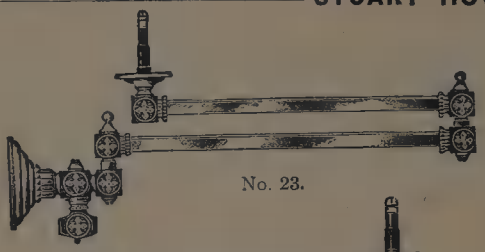
No. 36. 1-swing square twist bracket, polished . . . . . each. .80
Extends 10½ in.

No. 37. 2-swing square twist bracket, polished . . . . . each, 1.20
Extends 20 in.

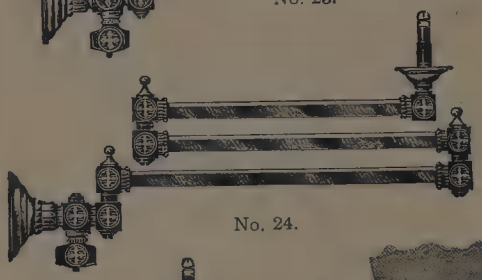
No. 20. Stiff square bracket, polished, each, .50
Extends 6½ in.

No. 21. Stiff curve square bracket polished, each, .60
Extends 7 in.

No. 22. 1-swing square bracket, polished, each, .70
Extends 11½ in.



No. 23.



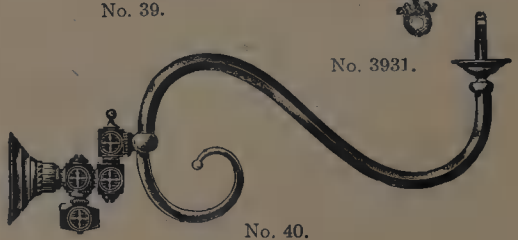
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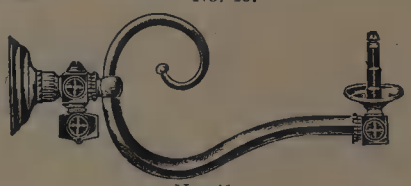
No. 3933.

No. 39.

No. 3931.



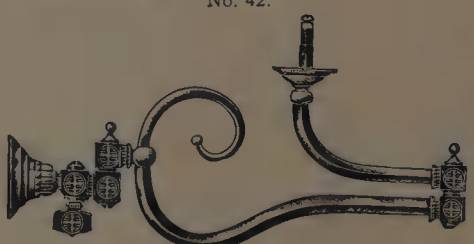
No. 40.



No. 41.



No. 42.



No. 43.

BRACKETS, Brass Side.

Gas Side Brackets (Continued).

No. 23. 2-swing square bracket, polished.....each, $1.00
Extends 20 in.

No. 24. 3-swing square bracket, polished.....each, 1.40
Extends 28 in.

No. 39. Stiff diamond bracket, polished.....each, 1.15
Extends 5 in.

No. 41. Stiff diamond bracket, polished.....each, 1.15
Extends 10 in.

No. 42. 1-swing diamond bracket, polished.....each, 1.50
Extends 11 in.

No. 43. 2-swing diamond bracket, polished.....each, 1.90
Extends 15 in.

No. 40. 1-swing diamond bracket, polished.....each, 1.75
Extends 13 in.

No. 3933. Stiff bracket, brushed brass or rich gilt, each, .90
Extends 11 in.

No. 3931. 1-swing, brushed brass or rich gilt .....each, 2.75
Extends 13 in.

BRACKETS, Cast Scroll (see Fixtures, pole and wall).

BRACKETS, Cord (see Trimmings, car).

BRACKETS, Flexible (see Fixtures).



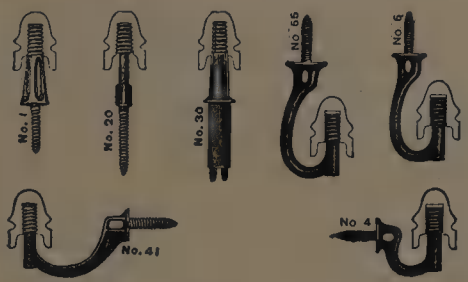
Almond Flexible Tube.

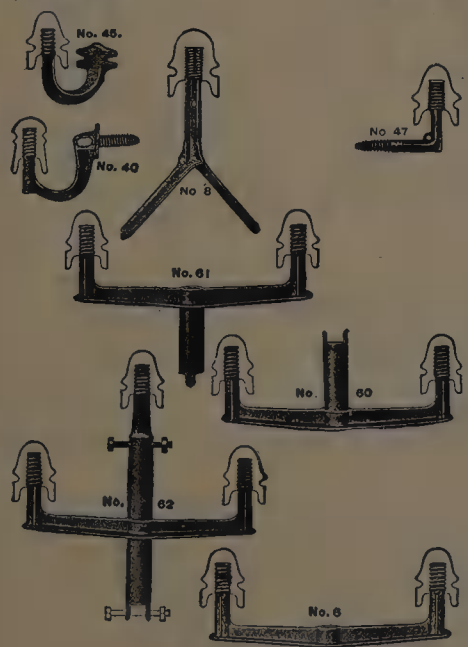


House Bracket.



Double House Bracket.





Beardsley Brackets and Pins.

BRACKETS, Flexible (Continued).

Almond Flexible Tube.

These tubes have become the recognized standard for use on brackets, where it is desirable to change the position of light. Their flexibility is such, that when used on either a desk portable or a bracket, the light remains in any desired position until a new angle is necessary. Time or atmospheric changes do not affect their flexibility. May be used with a desk light stand also.

No. S-688	6-in. arm	each,	$ .65
,, S-689	9 ,, ,,	,,	.75
,, S-690	12 ,, ,,	,,	.90
,, S-691	15 ,, ,,	,,	1.10
,, S-692	18 ,, ,,	,,	1.35

,, S-693 24-inch arm and longer lengths at 90c. per foot.

BRACKETS, House.

House Telephone Bracket.

This block, consisting of a galvanized iron base, screwed to building and carrying a porcelain insulator, affords a strong, neat device for attaching pairs of insulated service wires to subscriber's station. It is especially adapted for use in connection with aërial conduit, the messenger wire from conduit being dead-ended around porcelain insulator, while service wires supported by it pass through insulator to desired point below.

No. S-694 ..... House bracket ..... each, $ .20

Double House Telephone Bracket,

Consisting of a galvanized malleable iron base attached by screws and equipped with two porcelain or glass insulators. This block affords a simple, cheap, and effective method of leading a pair of bare wires from a pole to a subscriber's station. A single device serving two distinct purposes. As a cross arm it is neat, cheap, and readily placed in position. As a house block, it can be attached to house without the slightest injury.

No. S-695 ... Double house bracket ... each, .37½

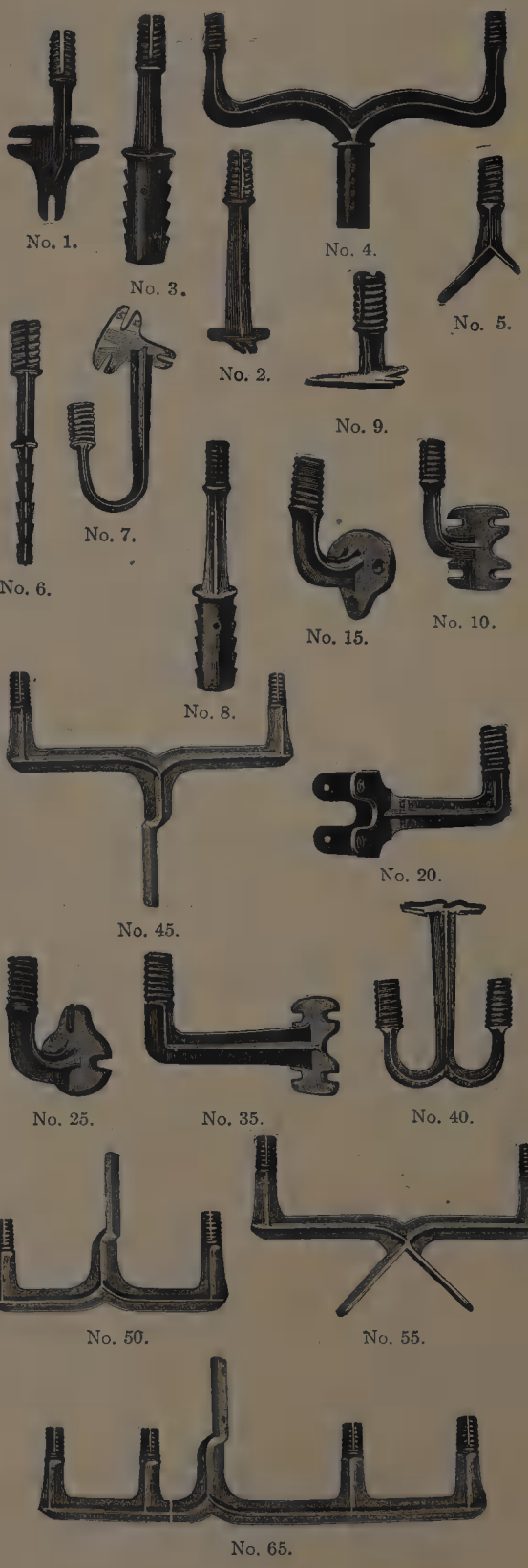
BRACKETS, Inner Rope (see Fixtures, pole and wall).

BRACKETS, Iron.

Beardsley Brackets and Pins.

Malleable iron with threaded ends to take all standard glass insulators.

		Per 100.
No. 1.	Screw pin with broad base	$15.20
,, 20.	,, ,, ,, long screw	13.60
,, 30.	Iron pin with ears to bend over edge of hole	17.60
No. 4.	Window or cornice hook (has standard lag screw thread for use with expansion bolts)	20.00
No. 40.	Window or cornice hook (heavier than No. 4, will take either a pony or deep groove insulator)	21.60
No. 41.	Window or cornice hook with 6-in. extension	28.00
No. 42.	Same as 41, but heavier	33.60
,, 45.	To attach with screws	13.60
,, 47.	Cornice hook	16.00
,, 5.	,, ,,	24.00
,, 55.	,, ,, heavier	33.60
,, 6.	Break arm, bolt fastened	40.00
,, 60.	,, ,, with ears to bend over edge of hole	50.00
No. 61.	Break arm with ears to bend over edge of hole	50.00
No. 62.	Branch arm	68.80
,, 8.	Ridge iron	20.80



BRACKETS, Iron (Continued).

Chubbuck Brackets and Pins.

	Per 100.
No. 1. Wall bracket, slots will fit mortar space in a brick wall	$7.50
No. 2. Roof bracket, suitable for roof tops, of cross arms, etc.	8.25
No. 3. Pin for 1½-in. hole in standard cross arm	9.60
No. 4. Break arm with adjustable screw ends and hollow pin with saw-tooth pin to hold it in place	30.00
No. 5. Hood bracket, suitable for use on cross bar of arc lamp hood	7.50
No. 6. Pin for ½-in. hole, with slotted head and adjustable screw end	4.95
No. 7. Underground bracket for subway wiring, conduit work, etc.	9.60
No. 8. Pin for 1¼-in. hole in cross arm	9.60
No. 9. Bracket, short, for roofs, top of cross arms, etc.	7.50
No. 10. Bracket for heavy wiring, stronger than No. 1	9.60
No. 15. Bracket, an extra strong bracket for very heavy wiring	13.50
No. 20. Bracket, for corner work on chimneys or corners of houses	15.00
No. 25. Bracket for heavy feeder wires	18.00
No. 35. Bracket, a long side bracket with slotted plate	15.00
No. 40. Bracket, a double underground bracket	16.50
No. 45. Break arm for telephone work to screw against side of cross arm	35.00
No. 50. Break arm, same, to go on under side of cross arm	30.00
No. 55. Roof bracket or break arm for use on ridgepole of house	30.00
No. 65. 4-pin break arm, same as No. 60, but to go below cross arm, etc.	65.00



No. 75. No. 60.



No. 80.



Cutter's Pinless Break Arm.



Cutter's Fixed Pin Break Arm.



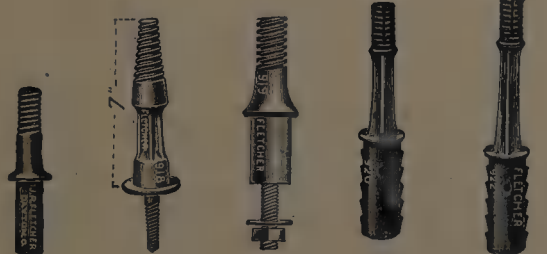
No. 901.



Cutter's Clamp Arm.



No. 911. No. 912. No. 913. No. 914. No. 915. No. 916.



No. 917. No. 918. No. 919. No. 920. No. 922.

BRACKETS, Iron.

Chubbuck Brackets and Pins
(Continued).

	Per 100.
No. 60. 4-pin break arm to go against flat of cross arm, etc.	$60.00
No. 70. Malleable bracket with curved base, to be used on poles. (Like No. 10)..	9.60
No. 75. Removable pin break arm for two 1½-in. pins, to fit 1½-in. holes in cross arm..	32.00
No. 80. Removable pin break arm for two 1¼-in. pins, to fit 1¼-in. hole in cross arm ..	32.00

Cutter's Brackets or Break Arms.

	Net, Ea.
No. S-696. Fixed pin break arm, cast iron, with 12-in. spread between pins..	$ .30
No. S-697. Pinless break arm, cast iron, with 1½-in. sockets 12 in. apart.....	.30
No. S-698. Double ceiling bracket for bridges, mines, etc.	.24
No. S-699. Clamp arm, light weight, pinless, for use with Cutter's Park Crook; made of 2½-in. (bore) piping with U-bolt for 2½-in. pipe.....	.40

(Also furnished at same price for 1¼-, 1½-, and 2-inch bore piping).

Fletcher's Brackets and Pins.

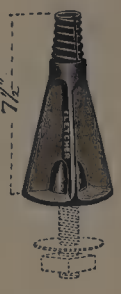
No.	Sh. Wt. per 100 in Lbs.	Price, Each.
901. Pole top thimble..... For 1½-in. pin. 6 in. high.	250	$ .24
902. Ditto for 1¼-in. pin...	350	.24
911. Die forged steel pin... With bolt, nut and washer.	300	.45
912. Ditto 4½ in. x 4⅞ in.....	425	.31
913. Iron pin, 4 in. x 5½ in.	325	.18
914. Die forged steel pin .. 3⅜ in. x 4⅜ in.	330	.30
915. Ditto, 5 in. x 4⅜ in...	490	.32
916. Standard iron pin.... 3⅜ in. x 4⅛ in.	280	.15
917. Iron pin, 1¼-in. butt. 3¼ in. x 4¼ in.	240	.15
918. Pole top bracket, 7 in.	265	.20
919. Iron pin, with bolt, nut and washer....	300	.18
920. Malleable iron pin.... 3⅞ in. x 4⅞ in.	125	.10
922. Ditto, 3¾ in. x 7⅞ in.,	150	.14



No. 924.



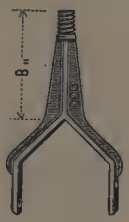
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No. 926.



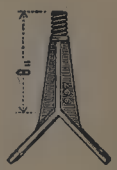
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No. 996.



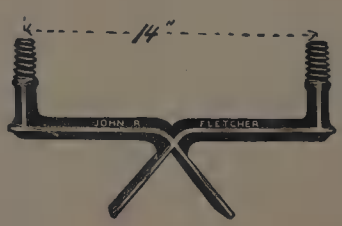
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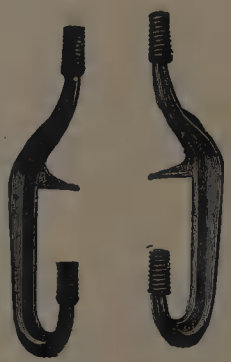
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No. 999.



No. 1003.

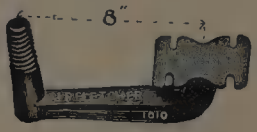


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No. 1005.



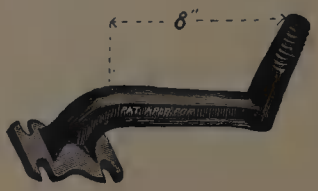
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No. 1010.



No. 1006.



No. 1008.



No. 1011.



No. 1012.

BRACKETS, Iron.

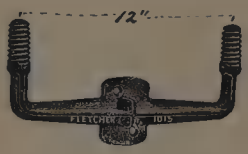
Fletcher's Brackets and Pins

(Continued).

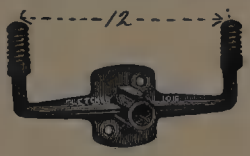
		Sh. Wt. per 100 in Lbs.	Price, Each.
No. 924.	Solid malleable iron pin, 3¼ in. x 4½ in.	280	.20
No. 925.	Ditto, 4 in. x 5½ in.	350	.22
No. 926.	Cross arm bracket, flat bottom, 7½ in. high.	250	.18
No. 927.	Ditto, concave bottom, 7½ in. high	250	.19
No. 995.	Pole top bracket. For 6-in. pole. 8-in. extension.	500	.30
No. 996.	Ditto for 7-in. pole. 8-in. extension.	550	.30
No. 997.	Single pin ridge bracket. 8-in. extension.	400	.24
No. 998.	Ditto, 4-in. extension.	225	.13
No. 999.	Single pin roof bracket. 7½-in. extension.	190	.15
No. 1001.	Break arm. 1½-in. thimble. 1½-in. stem. 12-in. spread.	645	.32
No. 1002.	Ditto, 1½-in. stem. 12-in. spread.	565	.30
No. 1003.	Double pin roof break arm. 14-in. spread.	500	.27
No. 1004.	Spreader bracket, left. 12-in. spread.	525	.30
No. 1005.	Ditto, right. 12-in. spread.	525	.30
No. 1006.	Ditto, front. 12-in. spread.	530	.30
No. 1007.	Side bracket. 6-in. extension.	225	.14
No. 1008.	Roof bracket. 8-in. extension.	370	.20
No. 1009.	Ditto, 8-in. extension.	240	.17
No. 1010.	Cornice bracket, 8-in. extension.	360	.20
No. 1011.	Lateral bracket, right. 7-in. extension.	310	.18
No. 1012.	Ditto, left. 7-in. extension.	310	.18


No. 1013.


No. 1014.



No. 1015.



No. 1016.



No. 1017.


No. 1018.

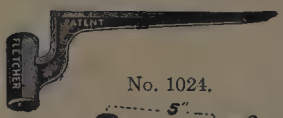

No. 1019.


No. 1020.


No. 1021.


No. 1022.

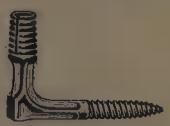




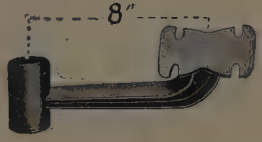
No. 1024.



No. 1027.


No. 1025.


No. 1026. No. 1023.



No. 1030.


No. 1028.


No. 1029.



Nos. 1001, 1031, 1033 and 1034.


No. 1036.

No. 1037.



Nos. 1002, 1032.

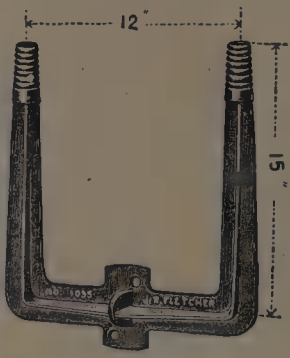
BRACKETS, Iron.

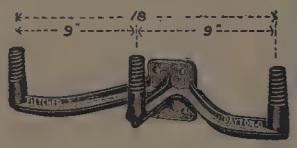
Fletcher's Brackets and Pins (Continued).

		Sh. Wt. per 100 in Lbs.	Price, Each.
No. 1013.	Single ceiling bracket.....	300	$ .20
No. 1014.	Double ceiling bracket.....	350	.24
No. 1015.	Break arm..... Spread 12 in.	305	.24
No. 1016.	Reflector break arm... Spread 12 in.	410	.28
No. 1017.	Special break arm..... Spread 12 in.	420	.28
No. 1018.	Wall bracket. .	190	.10
,, 1019.	Ditto.....	215	.12
,, 1020.	Malleable iron wall bracket..	85	.08
No. 1021.	Ridge bracket..	80	.07
,, 1022.	Malleable iron drive bracket.....	90	.10
No. 1023.	Ditto.....	90	.10
,, 1024.	Ditto.....	180	.16
,, 1025.	Malleable iron screw bracket	85	.10
No. 1026.	Malleable iron screw pin....	65	.08
No. 1027.	Corner bracket,..... 6-in. extension.	260	.23
No. 1028.	Pole bracket...	200	.10
,, 1029.	Wall bracket. . Extra heavy.	285	.18
No. 1030.	Cornice bracket, for 1½-in. pin..... 8-in. extension.	425	.20
No. 1031.	Break arm..... 1¼-in. thimble. 1¼-in. stem. 12-in. spread.	525	.32
No. 1032.	Ditto..... 1¼-in. stem. 12-in. spread.	580	.30
No. 1033.	Ditto,..... 1¼-in. thimble. 1½-in. stem. 12-in. spread.	565	.32
No. 1034.	Ditto..... 1½-in. thimble. 1¼-in. stem. 12-in. spread.	665	.32
No. 1036.	Spreader bracket.....	460	.30
No. 1037.	Ditto.....	475	.30



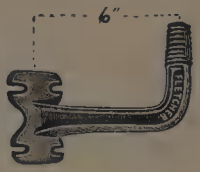
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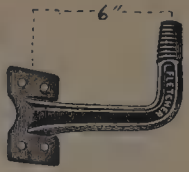


No. 1057.

No. 1035.



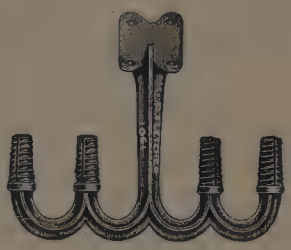
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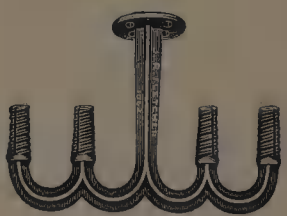
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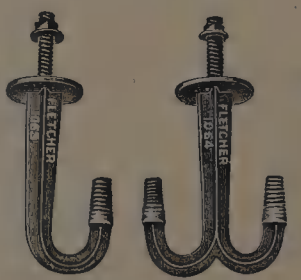
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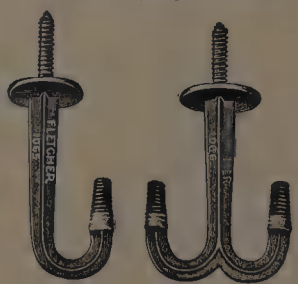
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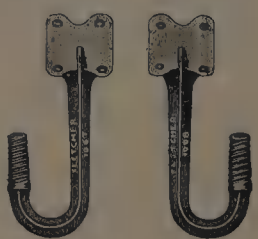
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No. 1063. No. 1064.



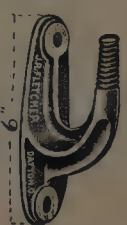
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No. 1067. No. 1068.



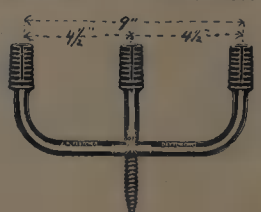
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No. 1070.



No. 1072.



No. 1073.



No. 1074.

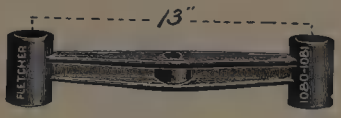
BRACKETS, Iron.

Fletcher's Brackets and Pins
(Continued).

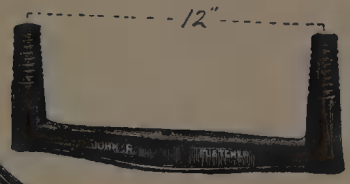
		Sh.Wt. per 100 in Lbs.	Price, Each.
No. 1035.	Break Arm..... 15-in. arms. 12 in. spread.	815	$ .45
No. 1038.	Malleable iron wall bracket.... 6-in. extension.	180	.15
No. 1039.	Ditto..... 6-in. extension.	175	.17
No. 1056.	2-point bracket..... 18-in. spread.	835	.42
No. 1057.	3-point bracket.....	1047	.50
No. 1058.	Pole bracket... Extra heavy.	290	.18
No. 1059.	Single prong bracket..... Like No. 1021.	80	.06
No. 1061.	4-wire pendant bracket .	550	.45
No. 1062.	4-wire ceiling bracket.....	544	.45
No. 1063.	Single ceiling bracket..... With bolt.	310	.20
No. 1064.	Double ceiling bracket..... With bolt.	360	.24
No. 1065.	Single ceiling bracket..... With lag screw.	270	.20
No. 1066.	Double ceiling bracket..... With lag screw.	360	.24
No. 1067.	Left pendant bracket.....	300	.20
No. 1068.	Right pendant bracket .	300	.20
No. 1069.	Double pendant bracket .	360	.24
No. 1070.	Cable bracket.. Extra heavy.	600	.32
No. 1072.	Malleable screw bracket..... 2-pin. 5-in. spread.	120	.15
No. 1073.	Ditto, 3-pin....	165	.23
,, 1074.	Malleable wall bracket, with paraffined oak head....	85	.10



No. 1075.



Nos. 1080, 1081.



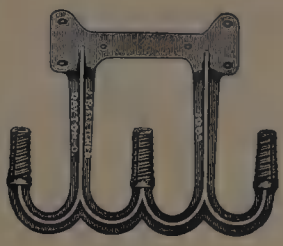
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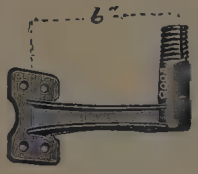
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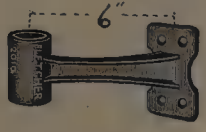
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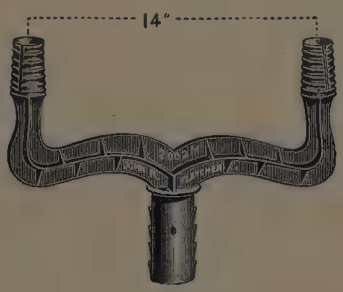
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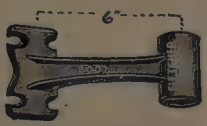
No. 2008.



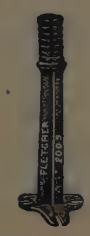
No. 2010.



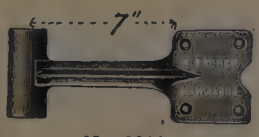
No. 2002.



No. 2007.



No. 2009.



No. 2011.



No. 2017.



No. 2018.

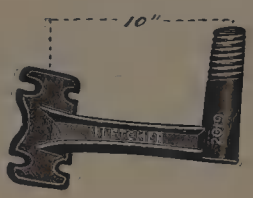


No. 2027.

BRACKETS, Iron.

Fletcher's Brackets and Pins
(Continued).

	Sh. Wt. per 100, in Lbs.	Price. Each.
No. 1075. Malleable wall bracket with locust head	85	$ .12
No. 1080. Break arm .... For 1¼-in. pins. 13-in. spread.	500	.32
No. 1081. Ditto, for 1½-in. pins	525	.32
13-in. spread.		
No. 1082. Ditto	510	.30
,, 1083. 3-point bracket,	775	.45
,, 1084. Ditto	780	.45
,, 1085. Ditto, pendant bracket	707	.40
No. 1086. 4-point bracket,		.50
,, 1089. 2-point spreader pipe bracket	1200	.63
No. 2001. Malleable removable pin break arm	440	.32
14-in. spread.		
No. 2002. Malleable permanent pin break arm	420	.30
14-in. spread.		
No. 2006. Wall bracket.. For 1¼-in. pin.	280	.15
No. 2007. Ditto, for 1½-in. pin	300	.15
6-in. extension.		
No. 2008. Ditto, permanet pin	225	.16
No. 2009. Malleable roof bracket	100	.08
No. 2010. Side bracket.. For 1½-in. pin. 6-in. extension.	300	.16
No. 2011. Wall bracket.. For 1½-in. pin. 7-in. extension.	400	.18
No. 2017. Malleable corner bracket.... 5-in. extension.	205	.16
No. 2018. Extra large wall bracket 10-in. extension.	520	.28
No. 2027. Corner bracket for 1½-in. pin..... 5-in. extension.	310	.26



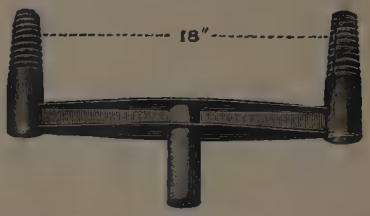
No. 2019.



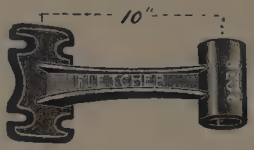
No. 3001.



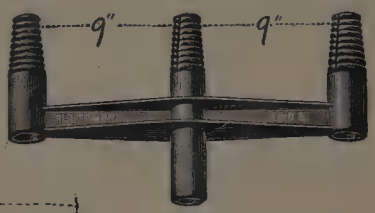
No. 2021.



No. 3002.



No. 2020.



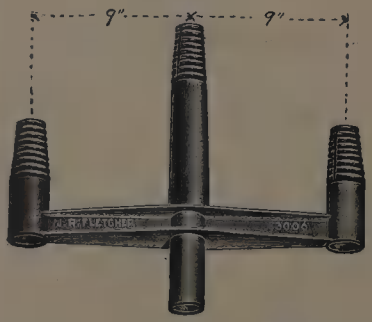
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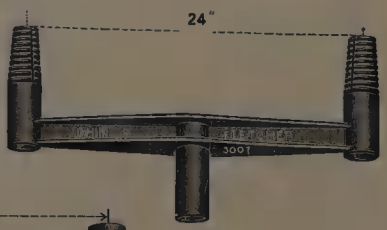
No. 3004.



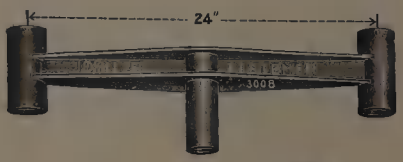
No. 28. Ridge Iron.



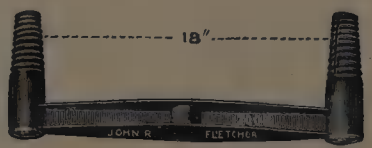
No. 3006.



No. 3007.



No. 3008.



No. 3009.

BRACKETS, Iron.

Fletcher's Brackets and Pins (Continued).

	Sh. Wt. per 100 in Lbs.	Price, Each.
No. 2019. Extra large wall bracket, 10-in. extension.	500	$ .28
No. 2020. Ditto for 1½-in. pin..... 10-in. extension.	540	.28
No. 2021. Ditto for 1½-in. pin..... 10-in. extension.	550	.28
No. 3000. 3-pin break arm ..... 18 in. wide. 1¼-in. stem.	1000	.45
No. 3001. 2-pin break arm..... 18 in. wide. 1½-in. stem. For 1½-in. pin.	830	.42
No. 3002. 2-pin break arm..... 18 in. wide. 1½-in. stem.	820	.40
No. 3003. 3-pin break arm..... 18 in. wide. 1½-in. stem.	800	.45
No. 3004. 4-pin break arm.....1200 28 in. wide. 1½-in. stem. For 1½-in. pins.		60
No. 3005. 2-pin break arm..... 18 in. wide. 1¼-in. stem. For 1½-in. pins.	750	.42
No. 3006. 3-pin break arm .....1060 18 in. wide. 1½-in. stem.		.56
No. 3007. 2-pin break arm .....1080 24 in. wide. 1½-in. stem.		.52
No. 3008. 2-pin break arm .....1100 24 in. wide. 1½-in. stem. For 1½-in. pins.		.55
No. 3009. Ditto, 18 in. spread .....685 Use ½-in. bolt.		.40

Locke's Ridge Irons.

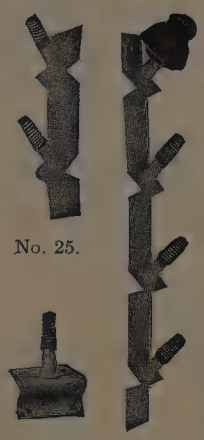
Designed for pole tops and 3-wire transmission lines. Furnished galvanized only. No. 27 is fitted with No. 14 pin (see Pins) and Nos. 68 and 78 with all wood top pins Nos. 34 and 35 respectively. The others are fitted with porcelain base pins.

No.	Hgt. Over all. In.	Hgt. of Iron. In.	Bet. Legs. In.	Size Iron. In.	Pin No.	Wt. Pkg. Lbs.
27	11 5/8	7	6	⅛ x 2¼	14	2½
28	11¾	7	6	⅛ x 2¼	20	2¾
38	12⅜	7	6	⅛ x 2¼	27	3
48	13¾	8	7	3/16 x 2¾	24	4½
58	15	8	7	3/16 x 2¾	25	5
68	11½	7	6	⅛ x 2¼	34	2½
78	13¼	8	7	3/16 x 2¾	35	4⅝
88	12¾	8	7	3/16 x 2¾	20	4¾
98	13⅜	8	7	3/16 x 2¾	27	5
108	17	8	7	3/16 x 2¾	28	8

Prices on application.



No. 23. Locke Bracket.



No. 25.



No. 24.

No. 22.

No. 26.



No. 20.

BRACKETS, **Iron** (Continued).

Locke's Brackets.

These brackets and break arms, except No. 21, are fitted with No. 14 galvanized base pins. They are forged from heavy stock and will not break. These fittings are furnished galvanized only.

No.	Distance Between Pins.	Length Over All.	Weight, Net.
20	12 in.	14¼ in.	4 lbs.
21*	12 ,,	14¼ ,,	4¼ ,,
22		5 ,,	2 ,,
23	6½ ,,	9 ,,	3½ ,,
24	6 ,,	14 ,,	5½ ,,
25	8 ,,	16 ,,	3¾ ,,
26	8 ,,	32 ,,	7 ,,

*Same as No. 20, except No. 26 porcelain base pins instead of No. 14. pins.

Prices on application.

BRACKETS, **Lodge** (see Fixtures, pole and wall).

BRACKETS, **Mammoth** (see Fixtures, pole and wall).

BRACKETS, **Mansion** (see Fixtures, pole and wall).

BRACKETS, **Plain Arc** (see Fixtures, pole and wall).

BRACKETS, **Pole** (see Brackets, wood, also Fixtures, pole and wall).

BRACKETS, **Power-House** (see Fixtures, pole and wall).

BRACKETS, **Spare Lamp.**



T-H.



Edison.

Spare Lamp Brackets.

Spare Lamp Brackets.

For use in electric cars for carrying extra lamps for emergency. The T.-H. style may be used with an Edison adapter so as to take Edison base lamps if desired.

No. 700.	Edison base	each,	$ .30
,, 701.	T.-H. base	,,	.35

BRACKETS, **Station** (see Fixtures, pole and wall).

BRACKETS, **Street or Pole** (see Fixtures, street).

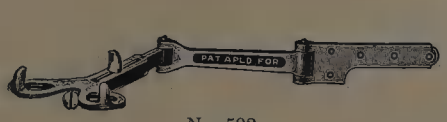
BRACKETS, **Street Railway** (see Arms, bracket).

BRACKETS, **Swing** (see Fixtures and Brackets, brass).

BRACKETS, **Telephone.**

May be fastened to side of roll top desk holding telephone exactly where needed and yet instantly out of the way when not in use.

No. 502.	Oxidized copper finish	each,	$2.00
	Nickel plated finish	,,	2.50



No. 502.



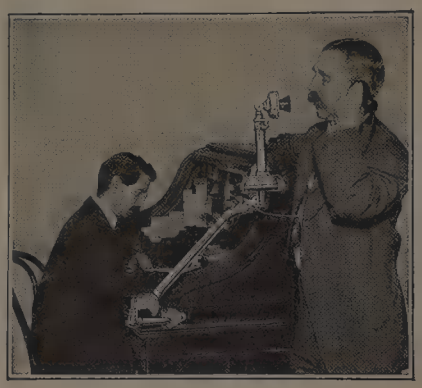
Burns' Adjustable Bracket.

Burns' Adjustable Telephone Brackets.

Length, when open, 23 inches from mouth of transmitter to rear standard; when closed, 9 inches.

No. 83.	Bracket for flat top desk		$4.00
,, 85.	,, ,, roll top desk		4.00
,, 835.	Double bracket for flat top desk,		7.00
,, 833.	Double bracket for roll top desk,		7.00
,, 866.	Double bracket for table with clamp,		8.00

BRACKETS, Telephone (Continued).

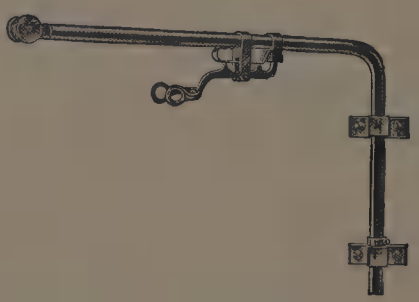


Equipoise Telephone Bracket.

The Equipoise Telephone Arm.

Made to attach to roll or flat top desks, counters, etc., or to stand on floor. Operates by a touch of the hand. The 'Phone revolves at the outer end of the arm and is held in a horizontal position regardless of height of arm. Thumb nut on the rod regulates the tension of counterpoising spring. Small shoe sliding on same automatically compensates for varying weight of 'Phone. Balances perfectly in any position.

No. H-711.	24-in., hard rubber finish..each,	$4.50
,, H-712.	27 ,, ,, ,, ,, ... ,,	4.85
,, H-713.	30 ,, ,, ,, ,, ... ,,	5.00
,, H-714.	36 ,, ,, ,, ,, ... ,,	5.25
	For full nickel finish add...	.50
	,, 10-in. drop extensions .each,	.75
	,, 15 ,, ,, ,, . ,,	1.00
	,, 17 ,, ,, ,, . ,,	1.00
	Floor stands..... ,,	2.50



H-C Swinging Bracket.

H-C Swinging Arm Desk Telephone Set.

Made of heavy seamless brass tubing. Hook rigidly secured to the arm. All contacts of platinum. Adjustable transmitter head.

No. 3–205. Swinging arm only as illustrated, each,	$7.00
No. 4–205. Swinging arm complete with transmitter, receiver, induction coil and connecting cords, each,	18.00



Phone-Eze Bracket.

Phone-Eze Bracket.

A rigid, strong, light-weight bracket having great range of motion both below as well as above the horizontal. In ordering state style A if for roll top desk, style B if for flat top desk, style C if for side of flat top desk, style D if for wall or partition.

No. S-710.	Phone-Eze telephone bracket, 24-in. length.....each,	$5.00
	4-in. and 6 in. extension.. ,,	.50
	12 ,, extension..... ,,	.75
	Floor stand for 1 bracket... ,,	2.50
	,, ,, ,, 2 ,, ... ,,	3.00

BRACKETS, Wood.

No.		Per 1000.
S-702.	Oak bracket, 10-in., plain.....	$17.50
S-703.	,, ,, 10 ,, painted.....	17.50
S-704.	,, ,, 11 ,, plain.....	20.00
S-705.	,, ,, 11 ,, painted.....	20.00
S-706.	,, ,, 12 ,, plain.....	25.00
S-707.	,, ,, 12 ,, painted.....	25.00

S-708. Heavy offset bracket. (Special prices on application.)



Wood Bracket.

BRACKETS, White's Standard, Adjustable (see Fixtures).

BRADS (see Nails).

BRAKE Chain (see C).

BRAKE Handles (see H).

BRAKE Shoes (see S).

BRAKES, Car.



Sterling Safety Car Brake.

Sterling Safety Car Brakes.

The Sterling Safety Car Brake has two chains, the upper one doing all the work; the lower, or safety chain, running without tension, idly and unworn, but connected and ready instantly to be in service, should the working chain give way.

These chains run in sprockets and are therefore subject to far less wear than if wound promiscuously around a spindle or post.

No. S-709. Sterling safety car brakes, per pair, $70.00

BRASS Cleats (see C).

BRASS Wire (see W).

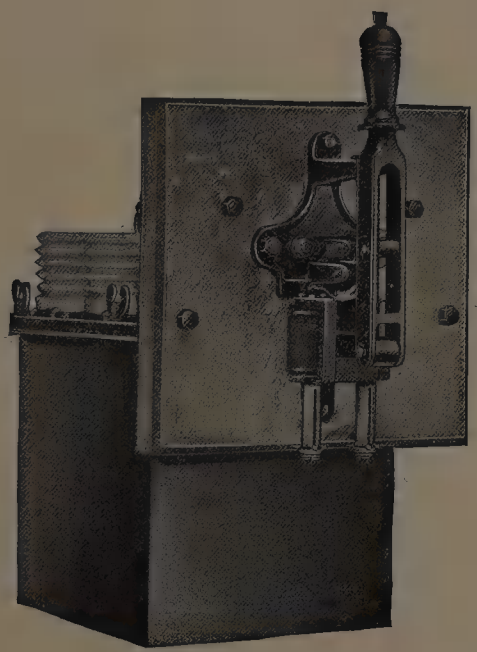
BREAK Arms (see Brackets, iron).

BREAK, Loop (see Insulator, rope).

BRASS Casing (see Pipe).

BRASS Pipe (see Pipe).

BREAKERS, Circuit.



Condit Oil Circuit Breaker.

Condit Oil Circuit Breakers.

Type D Automatic A. C.

This oil circuit breaker has laminated brushes and is designed for cases where large units at low potentials are to be used. For remote control add 25 per cent to list prices.

For Potentials not Exceeding 3,300 Volts.

No.				Each.
S-711.	D.P.S.T. breaker,	100	amps. . . .	$240.00
S-712.	,, ,,	200	,, . . .	240.00
S-713.	,, ,,	300	,, . . .	240.00
S-714.	,, ,,	400	,, . . .	260.00
S-715.	,, ,,	600	,, . . .	280.00
S-716.	,, ,,	1000	,, . . .	400.00
S-717.	,, ,,	1200	,, . . .	410.00
S-718.	T.P.S.T. ,,	100	,, . . .	320.00
S-719.	,, ,,	200	,, . . .	320.00
S-720.	,, ,,	300	,, . . .	320.00
S-721.	4 P.S.T. ,,	100	,, . . .	390.00
S-722.	,, ,,	200	,, . . .	390.00
S-723.	,, ,,	300	,, . . .	390.00

For Potentials 6,600 to 15,000 Volts.

No.				Each.
S-724.	D.P.S.T. breaker,	100	amps. . . .	$240.00
S-725.	,, ,,	200	,, . . .	240.00
S-726.	T.P.S.T. ,,	100	,, . . .	320.00
S-727.	,, ,,	200	,, . . .	320.00
S-728.	4.P.S.T. ,,	100	,, . . .	390.00
S-729.	,, ,,	200	,, . . .	390.00

BREAKERS, **Circuit** (Continued).

Condit Type K Circuit Breakers.

Laminated circuit breakers for direct or alternating current. Dead black finish, polished copper fittings.

When not otherwise specified these breakers are furnished mounted on wooden bases with back connections for remounting on a switchboard 2 inches thick. Slate mounted at slight advance.



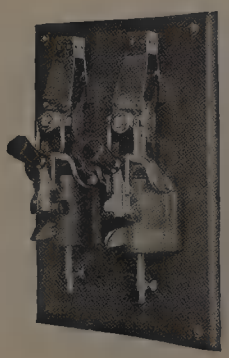
S. P. Type K.

Form L, 250 Volts.

	Continuous Duty.	Approximate Range.	Single Pole.	Double Pole.	Triple Pole.
No. S-730	5	4 to 8	$30.00	$65.00	$95.00
,, S-731	10	8 ,, 15	30.00	65.00	95.00
,, S-732	20	15 ,, 30	30.00	65.00	95.00
,, S-733	30	25 ,, 45	32.00	69.00	113.00
,, S-734	45	35 ,, 70	32.00	69.00	113.00
,, S-735	60	45 ,, 90	35.00	75.00	125.00
,, S-736	80	60 ,, 120	35.00	75.00	125.00
,, S-737	100	75 ,, 150	40.00	85.00	145.00
,, S-738	150	110 ,, 225	40.00	85.00	145.00

Form M, 500 Volts.

	Continuous Duty.	Approximate Range.	Single Pole.	Double Pole.	Triple Pole.
No. S-739	5	4 to 8	$44.00	$88.00	$132.00
,, S-740	10	8 ,, 15	44.00	88.00	132.00
,, S-741	20	15 ,, 30	46.00	92.00	138.00
,, S-742	30	25 ,, 45	46.00	92.00	138.00
,, S-743	45	35 ,, 70	48.00	96.00	144.00
,, S-744	60	45 ,, 90	50.00	100.00	150.00
,, S-745	80	60 ,, 120	54.00	108.00	162.00
,, S-746	100	75 ,, 150	54.00	108.00	162.00
,, S-747	150	110 ,, 225	56.00	112.00	168.00
,, S-748	200	150 ,, 300	56.00	112.00	168.00
,, S-749	300	225 ,, 450	58.00	116.00	174.00
,, S-750	400	350 ,, 600	64.00	128.00	192.00



D. P. Type K.

Form N, 500 Volts.

	Continuous Duty.	Approximate Range.	Single Pole.	Double Pole.	Triple Pole.
No. S-751	500	425 to 800	$100.00	$200.00	$300.00
,, S-752	600	500 ,, 900	114.00	228.00	342.00
,, S-753	700	600 ,, 1000	122.00	244.00	366.00
,, S-754	800	700 ,, 1200	130.00	260.00	390.00

Form O, 500 Volts.

	Continuous Duty.	Approximate Range.	Single Pole.	Double Pole.	Triple Pole.
No. S-755	1000	900 to 1500	$150.00	$300.00	$450.00
,, S-756	1200	1000 ,, 1800	160.00	320.00	480.00
,, S-757	1500	1200 ,, 2250	200.00	400.00	600.00

Larger sizes on application.

Extras.

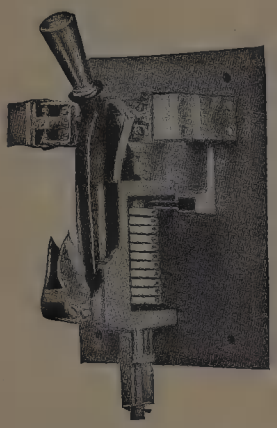
Four-pole circuit breakers: two times price of double pole.
No voltage: add $25 list additional.
Underload only: add $10 list additional.
Overload and underload: price upon application.
Reverse current: price upon application.
Bell ringing attachment: add $10 list additional.
Push button opening: add $30 list additional.

BREAKERS, **Circuit** (Continued).

I-T-E Circuit Breakers.

The use of an approved circuit breaker for the protection of generators, feeders, and motors is now all but universal.

The fuse which was formerly relied upon for protection against overloads and short circuits is no longer considered adequate. Its unreliability is a matter of common knowledge and its renewal a constant source of expense. A circuit breaker may be instantly reset and is self-protective. Standard finish, dead black and polished copper.



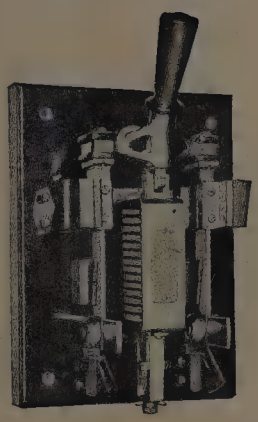
Midget Senior Type D. P.

I-T-E Midget Senior Type.

Single Pole, Direct Current, 500 volts or less, Plain Overload.

For the protection of individual motors. Not as heavy as the standard switchboard type, but equally efficient within its range.

	Rating.	Calibration.	Price.
No. S-758	5 amps.	4 to 8 amps.	$24.00
,, S-759	10 ,,	8 ,, 15 ,,	24.00
,, S-760	20 ,,	15 ,, 30 ,,	24.00
,, S-761	30 ,,	25 ,, 45 ,,	24.00
,, S-762	45 ,,	35 ,, 70 ,,	24.00
,, S-763	60 ,,	45 ,, 90 ,,	30.00
,, S-764	80 ,,	60 ,, 120 ,,	32.00
,, S-765	100 ,,	75 ,, 150 ,,	33.00
,, S-766	150 ,,	110 ,, 225 ,,	35.50
,, S-767	200 ,,	150 ,, 300 ,,	37.00
,, S-768	300 ,,	225 ,, 450 ,,	40.00



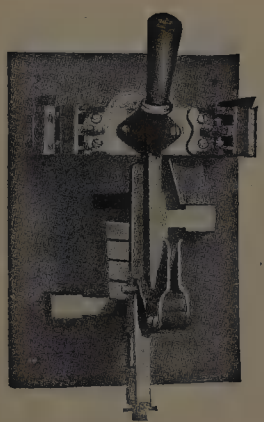
Midget Senior Type S. P.

I-T-E Midget Senior Type.

Double Pole, 250 volts or less, Plain Overload.

	Normal Rating.	Calibration.	Direct Current.	Alt. Current.
No. S-769	30 amps.	25 to 45 amps.	$36.00	$40.00
,, S-770	45 ,,	35 ,, 70 ,,	36.00	40.00
,, S-771	60 ,,	45 ,, 90 ,,	38.00	42.00
,, S-772	80 ,,	60 ,, 120 ,,	40.00	44.00
,, S-773	100 ,,	75 ,, 150 ,,	42.00	47.00
,, S-774	150 ,,	110 ,, 225 ,,	46.00	51.00
,, S-775	200 ,,	150 ,, 300 ,,	50.00	55.00
,, S-776	300 ,,	225 ,, 450 ,,	54.00	59.00

Size of base of above type breakers is 8 x 11 inches. Extends 5¾ inches.



Standard Switchboard Type S. P.

I-T-E Standard Switchboard Type.

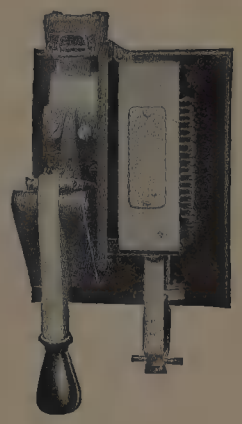
Single Pole, Direct Current, 500 volts or less, Plain Overload.

This breaker is larger, heavier, and stronger than the Midget Senior type. It is used to protect large motors in heavy manufacturing plants, for the protection of feeders and generators, etc.

	Normal Rating.	Calibration.	Price.
No. S-777	80 amps.	60 to 120 amps,	$43.50
,, S-778	100 ,,	75 ,, 150 ,,	43.50
,, S-779	150 ,,	110 ,, 225 ,,	43.50
,, S-780	200 ,,	150 ,, 300 ,,	45.00
,, S-781	300 ,,	225 ,, 450 ,,	54.50
,, S-782	400 ,,	300 ,, 600 ,,	61.00
,, S-783	500 ,,	375 ,, 750 ,,	64.00
,, S-784	600 ,,	450 ,, 900 ,,	67.00
,, S-785	700 ,,	525 ,, 1000 ,,	71.50

Size of base of above type, 700 amperes and under, 10 x 14 inches; 800 amperes and over, 12 x 15 inches.

BREAKERS, **Circuit** (Continued).



" E-L " Type S. P.

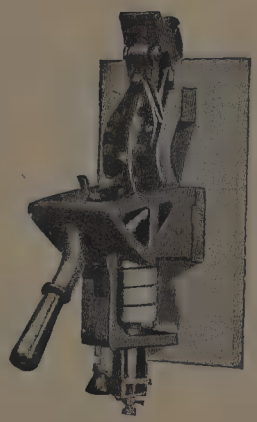
I-T-E Laminated " E-L " Type.

Single Pole, 250 volts or less, Plain Overload.

A small well built breaker for the protection of motors and motor driven tools; finely adjusted and easily reset by the pressure of a single finger.

	Normal Rating.	Calibration.	Direct Current.	Alt. Current.
No. S-790	5 amps.	4 to 8 amps.	$24.00	$26.50
,, S-791	10 ,,	8 ,, 15 ,,	24.00	26.50
,, S-792	20 ,,	15 ,, 30 ,,	26.00	28.50
,, S-793	30 ,,	25 ,, 45 ,,	26.00	28.50
,, S-794	45 ,,	35 ,, 70 ,,	28.00	30.00
,, S-795	60 ,,	45 ,, 90 ,,	30.00	33.00
,, S-796	80 ,,	60 ,, 120 ,,	32.00	36.00
,, S-797	100 ,,	75 ,, 150 ,,	33.00	37.00
,, S-798	150 ,,	110 ,, 225 ,,	35.50	41.00
,, S-799	200 ,,	150 ,, 300 ,,	37.00	42.00
,, S-800	300 ,,	225 ,, 450 ,,	40.00	45.00

Size of base of above type, 7 x 5½ inches.



" N-X " Type.

I-T-E Laminated " N-X " Type.

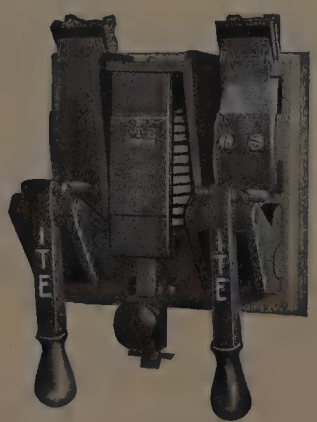
Single Pole, Direct Current, 250 volts or less, Plain Overload.

This breaker has all the merits of the standard street railway breaker, except that it is a little lighter in construction.

No.	Normal Rating.	Calibration.	Price.
S-801	80 amps.	60 to 120 amps.	$68.00
S-802	100 ,,	75 ,, 150 ,,	68.00
S-803	150 ,,	110 ,, 225 ,,	70.00
S-804	200 ,,	150 ,, 300 ,,	70.00
S-805	300 ,,	225 ,, 450 ,,	72.00
S-806	400 ,,	300 ,, 600 ,,	72.00
S-807	500 ,,	375 ,, 750 ,,	74.00
S-808	600 ,,	450 ,, 900 ,,	80.00
S-809	800 ,,	600 ,, 1200 ,,	90.00
S-810	1000 ,,	800 ,, 1500 ,,	105.00
S-811	1250 ,,	900 ,, 1800 ,,	115.00

Size of base of above type, 8 x 14 inches.

Projects 10¼ inches from board, closed, and 13½ inches when open.



" E-L " Type.

I-T-E " Dublarm " System, " E-L " Type.

Double Pole, Direct and Alternating Currents, 250 volts or less, Overload.

Can be opened as a double pole switch by simply tripping the mechanism by means of the small middle handle, and both poles will open simultaneously and instantaneously in the event of an overload or short circuit.

No.	Normal Rating.	Calibration.	Direct Current.	Alt. Current.
S-812	5 amps.	4 to 8 amps.	$40.00	$44.00
S-813	10 ,,	8 ,, 15 ,,	40.00	44.00
S-814	20 ,,	15 ,, 30 ,,	40.00	44.00
S-815	30 ,,	25 ,, 45 ,,	40.00	44.00
S-816	45 ,,	35 ,, 70 ,,	42.00	46.00
S-817	60 ,,	45 ,, 90 ,,	42.00	46.00
S-818	80 ,,	60 ,, 120 ,,	44.00	49.00
S-819	100 ,,	75 ,, 150 ,,	48.00	53.00
S-820	150 ,,	110 ,, 225 ,,	52.00	57.00
S-821	200 ,,	150 ,, 300 ,,	56.00	62.00
S-822	300 ,,	225 ,, 450 ,,	60.00	66.00

Size of base of above type, 7½ inches square for capacities of 200 amperes or less, larger sizes 8 inches square.



Type "N-X."

BREAKERS, **Circuit** (Continued).

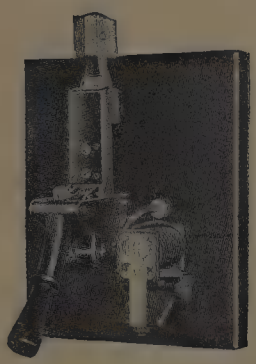
I-T-E "Dublarm" System, "N-X" Type.
Double Pole, Direct Current, 250 volts or less, Overload.

No.	Normal Rating.	Calibration.	Price.
S-823	100 amps.	75 to 150 amps.	$108.00
S-824	150 ,,	110 ,, 225 ,,	108.00
S-825	200 ,,	150 ,, 300 ,,	108.00
S-826	300 ,,	225 ,, 450 ,,	108.00
S-827	400 ,,	300 ,, 600 ,,	108.00
S-828	500 ,,	375 ,, 750 ,,	108.00
S-829	600 ,,	450 ,, 900 ,,	120.00
S-830	800 ,,	600 ,, 1200 ,,	150.00
S-831	1000 ,,	800 ,, 1500 ,,	175.00
S-832	1250 ,,	900 ,, 1800 ,,	200.00

I-T-E Laminated Type W.
Single Pole, Direct and Alternating Current, 600 volts or less, Plain Overload.

Designed especially for motor protection; not intended for remounting, and furnished only on black enameled slate base from which it should not be removed. Back connected.

No.	Actual Rating.	Calibration.	Direct Current.	Alt. Current.
S-834	5 amps.	4 to 10 amps.	$19.50	$24.50
S-835	10 ,,	8 ,, 20 ,,	19.50	24.50
S-836	20 ,,	15 ,, 40 ,,	19.50	24.50
S-837	30 ,,	25 ,, 60 ,,	19.50	24.50
S-838	45 ,,	35 ,, 90 ,,	22.50	27.50
S-839	60 ,,	45 ,, 120 ,,	22.50	27.50
S-840	80 ,,	60 ,, 160 ,,	22.50	27.50
S-841	100 ,,	75 ,, 200 ,,	25.00	30.00
S-842	150 ,,	110 ,, 300 ,,	29.00	34.00
S-843	200 ,,	150 ,, 400 ,,	31.00	36.00
S-844	300 ,,	225 ,, 600 ,,	35.50	40.50
S-845	400 ,,	300 ,, 800 ,,	40.00	45.00



Type W.

I-T-E "Dublarm" System, Type W.
Double Pole, Direct and Alternating Current, Overload, Independent Arms.

250 Volts or Less.

No.	Actual Rating.	Calibration.	Direct Current.	Alt. Current.
S-846	5 amps.	4 to 10 amps.	$28.00	$33.00
S-847	10 ,,	8 ,, 20 ,,	28.00	33.00
S-848	20 ,,	15 ,, 40 ,,	28.00	33.00
S-849	30 ,,	25 ,, 60 ,,	28.00	33.00
S-850	45 ,,	35 ,, 90 ,,	33.50	38.50
S-851	60 ,,	45 ,, 120 ,,	33.50	38.50
S-852	80 ,,	60 ,, 160 ,,	36.00	41.00
S-853	100 ,,	75 ,, 200 ,,	36.00	41.00
S-854	150 ,,	110 ,, 300 ,,	42.00	47.00
S-855	200 ,,	150 ,, 400 ,,	46.50	51.50
S-856	300 ,,	225 ,, 600 ,,	52.50	57.50
S-857	400 ,,	300 ,, 800 ,,	60.00	65.00

600 Volts or Less.

No.	Actual Rating.	Calibration.	Direct Current.	Alt. Current.
S-858	5 amps.	4 to 10 amps.	$30.00	$35.00
S-859	10 ,,	8 ,, 20 ,,	30.00	35.00
S-860	20 ,,	15 ,, 40 ,,	30.00	35.00
S-861	30 ,,	25 ,, 60 ,,	30.00	35.00
S-862	45 ,,	35 ,, 90 ,,	35.50	40.50
S-863	60 ,,	45 ,, 120 ,,	35.50	40.50
S-864	80 ,,	60 ,, 160 ,,	38.00	43.00
S-865	100 ,,	75 ,, 200 ,,	38.00	43.00
S-866	150 ,,	110 ,, 300 ,,	44.00	49.00
S-867	200 ,,	150 ,, 400 ,,	48.50	53.50

Barrier not furnished for 250 volts or less.

BREAKERS, Circuit (Continued).



L-L Type.

(I-T-E) L-L Type.

Single Pole, 750 volts or less, Plain Overload.

Especially adapted for heavy service such as street railway work. It is built to withstand severe service all day and every day. The design of the L-L Type Circuit Breaker is such that it requires a minimum space upon the switchboard.

PRICE LIST.

No.	Rating.	Calibration.	Price.
S-868	200 amps.	150 to 300 amps.	$80.00
S-869	300 ,,	200 ,, 450 ,,	80.00
S-870	400 ,,	250 ,, 600 ,,	80.00
S-871	500 ,,	300 ,, 750 ,,	80.00
S-872	600 ,,	400 ,, 900 ,,	90.00
S-873	700 ,,	500 ,, 1000 ,,	90.00
S-874	800 ,,	600 ,, 1200 ,,	100.00
S-875	1000 ,,	700 ,, 1500 ,,	112.50
S-876	1250 ,,	800 ,, 1800 ,,	125.00
S-877	1500 ,,	1200 ,, 2250 ,,	135.00
S-878	2000 ,,	1500 ,, 3000 ,,	200.00
S-879	2500 ,,	2000 ,, 3750 ,,	220.00

Size of base, 10 x 17 inches.



S-E Circuit Breaker.

S-E Circuit Breakers.

Strength, simplicity, and ability to carry rated current without undue heating, minimum number of joints, long rubbing contacts, self cleaning are the features of these circuit breakers.

The calibration is accomplished by changing a double air-gap with a dial head screw, and once set is unchanging.

Black finish with polished brass and copper parts.

The double pole breaker consists of two single pole breakers set side by side, each operated by its individual tripping mechanism, thus insuring double protection and giving a coil to pole. For switchboard mounting thickness of board should be given.

D. C. for 125–250-Volt Service.

No.	Ampere Capacity.	Range of Adjustment. Lowest.	Highest.	List. S. P.	D. P.
S-880	5	5	10	$7.00	$14.00
S-881	15	15	30	7.00	14.00
S-882	35	30	70	8.00	16.00
S-883	50	40	100	9.50	19.00
S-884	75	60	150	11.00	22.00
S-885	100	85	200	12.00	24.00
S-886	150	125	300	12.75	25.50
S-887	200	175	400	13.25	26.50
S-888	300	250	600	15.00	30.00
S-889	400	350	800	29.25	58.50
S-890	500	450	1000	36.50	73.00
S-891	600	550	1200	41.00	82.00
S-892	700	650	1400	44.00	88.00
S-893	800	750	1600	46.50	93.00
S-894	1000	850	2000	60.00	120.00
S-895	1200	1000	2400	90.00	180.00
S-896	1500	1200	3000	125.00	250.00

BREAKERS, Circuit.

S-E Circuit Breakers (Continued).

D. C. for 500-Volt Service.

No.	Ampere Capacity.	Range of Adjustment. Lowest.	Highest.	List. S. P.	D. P.
S-897	5	5	10	$8.00	$16.00
S-898	15	15	30	8.00	16.00
S-899	35	30	70	9.20	18.40
S-900	50	40	100	10.90	21.80
S-901	75	60	150	12.65	25.30
S-902	100	85	200	13.80	27.60
S-903	150	125	300	14.65	29.30
S-904	200	175	400	15.00	30.00
S-905	300	250	600	16.65	33.30
S-906	400	350	800	33.50	68.00
S-907	500	450	1000	43.00	87.00
S-908	600	550	1200	49.00	99.00
S-909	700	650	1400	54.00	110.00
S-910	800	750	1600	58.00	118.00
S-911	1000	850	2000	78.00	158.00

A. C. up to 440 Volts.

These breakers will operate successfully under all conditions, but where the voltage is more than 440 volts, the generator capacity more than 3,000 kilowatts, and the load largely inductive, special protective arrangements are sometimes required and all such cases should be taken up with the factory.

In ordering alternating current circuit breakers the volts, amperes, cycles, and character of service should be cited in every instance.

All multipole breakers are so arranged that all poles close simultaneously, and in the event of an overload on any one pole all open simultaneously.

No.	Capacity, Amperes.	Range, Amperes.	Single Pole.	Double Pole.	Triple Pole.
S-912	5	5 to 10	$15.00	$30.00	$45.00
S-913	10	10 ,, 20	15.00	30.00	45.00
S-914	15	15 ,, 30	15.00	30.00	45.00
S-915	35	35 ,, 70	20.00	40.00	60.00
S-916	50	50 ,, 100	20.00	40.00	60.00
S-917	75	75 ,, 150	20.00	40.00	60.00
S-918	100	100 ,, 200	21.50	43.00	64.50
S-919	150	150 ,, 300	25.00	50.00	75.00
S-920	200	200 ,, 400	26.50	53.00	79.50
S-921	300	300 ,, 600	30.00	60.00	90.00
S-922	400	400 ,, 800	37.50	75.00	112.50
S-923	500	500 ,, 1000	50.50	101.00	151.50
S-924	600	600 ,, 1200	62.50	125.00	187.50
S-925	700	700 ,, 1400	75.00	150.00	225.00
S-926	800	800 ,, 1600	81.25	162.50	243.75
S-927	1000	1000 ,, 2000	87.50	175.00	262.50
S-928	1200	1200 ,, 2400	100.00	200.00	300.00
S-929	1500	1500 ,, 3000	131.25	262.50	393.75
S-930	2000	2000 ,, 4000	212.50	425.00	637.50

Extras.

Breaker Capacity, Amps.	A Special Finish per Pole.	B Rigid Connect. per Pole.	C Front Connect. per Pole.	Extra Length Stud. per Inch.	Carbons. Each.	D Cable Term. Each.
5 to 100	$2.00	$2.50	$3.00	$ .21	$ .12	$ .25
150 ,, 300	4.00	3.00	6.00	.28	.16	.50
400 ,, 700	5.00	3.50	12.00	.42	.24	1.25
800 ,, 1000	8.00	6.00	20.00	.55	.16	1.45
1200 ,, 1500	10.00	15.00	30.00	.83	.16	2.45

A. — Special Finish. This includes copper plate, gun metal, or nickel finish.

B. — Rigid Connection. This covers multipole breakers so arranged that all poles close and open simultaneously.

C. — Front Connected. These breakers have connection terminals in front and are not furnished for switchboard mounting.

D. — Cable Terminals. One cable terminal is furnished on each pole, switchboard, and two on each pole, separate mounted breakers.

BREWERY Cord (see Cord).

BRIDGE, Queen=Acme Portable Testing Set
(see Ohmmeter).



E-3200.

Small and compact, galvanometer easily read and uninfluenced by external mechanical or magnetic disturbances, simple of construction, no adjustment necessary, great sensibility, and accuracy.

Will measure with accuracy from .01 of an ohm to 1,000,000 ohms.

E-3200.	Queen-Acme portable testing set, style D ..each,	$100.00
E-3205.	Queen-Acme portable testing set, special form with calibrated scale and chloride of silver cells for insulation measurements .....each,	130.00
E-3210.	Queen-Acme Special, same as preceding but with 50 cells in same case .....each,	200.00
E-3215.	Sole leather carrying case for E-3200 or E-3205 .....each,	6.00
E-3220.	Sole leather carrying case for E-3210 .....each,	9.00
E-3225.	Flexible contact clutches .....each,	5.00
E-3230.	Folding tripod for street work ..... ,,	7.50
	When any of above sets are ordered adjusted to double the accuracy add .....each,	15.00

The Queen-Acme will measure:

.01	of an ohm	to an	accuracy	of	½	of	1	per cent.
.1	,,	,,	,,	,,	,, ½	,,	1	,,
1	ohm	,,	,,	,,	,, ¼	,,	1	,,
10	ohms	,,	,,	,,	,, ⅕	,,	1	,,
100	,,	,,	,,	,,	,, ⅕	,,	1	,,
1000	,,	,,	,,	,,	,, ⅕	,,	1	,,
10000	,,	,,	,,	,,	,, ⅕	,,	1	,,
100000	,,	,,	,,	,,	,, ¼	,,	1	,,
1000000	,,	,,	,,	,,	4	per	cent.	

BRIDGE Hanger (see Suspensions).

BRIDGE Hood (see H).

BRIDLE Ring (see R).

BROILERS, Electric.



No. 1184.

Simplex Electric Broilers and Toasters.

Broilers.

Meats broiled on an electric broiler are dressed with their own juices (none of which are lost), and butter is not required.

Broilers are made of cast iron and are light and portable. For a family of four or five the 9 by 12 inch, one-heat, No. 1184, is satisfactory.

For club, restaurant or hotel use, three-heat broilers are desirable, as the low heat or minimum current supply will keep the broiler hot ready for an order. Full current will be required only during the operation of cooking.

		Watts Required. Min.	Max.	Price.
No. 1184.	Broiler. Size 9 x 12 in.; 3 ft. cord, no plug; 1 heat		1300	$12.00
No. 1185.	Broiler. Size 9 x 12 in.; 3 heats; 3 ft. cord and plug switch	330	1300	15.00
No. 1186.	Broiler. Size 12 x 18 in.; hotel type; 1 heat; 3 ft. cord; no plug,		2200	17.00
No. 1187.	Broiler. Size 12 x 18 in.; hotel type; 3 heats; 3 ft. cord and plug switch	730	2200	20.00

BROILERS, Electric (Continued).



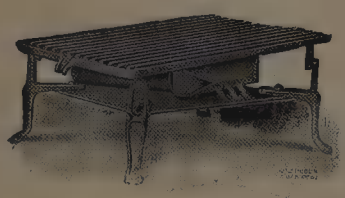
No. 1422.

Simplex Electric Broilers and Toasters.

Griddle Cake Cookers or Toasters.

These useful heaters are the best devices for griddle cake cooking and are equally useful for cooking any food that may be prepared on a hot, flat surface, but we do not recommend them for domestic use for cooking food in various utensils, because stoves to fit utensils are more quickly effective and more economical to operate for such purposes.

		Watts Required. Min.	Max.	Price.
No. 1422.	Size 9 x 12 in.; 1 heat; 4 ft. cord		880	$10.00
No. 1422½.	Size 9 x 12 in.; 3 heats; complete with plug switch and cord	330	880	13.00
No. 1423.	12 x 18 in.; hotel size; 1 heat; 4 ft. cord		1500	14.00
No. 1424.	12 x 18 in.; 3 heats; complete with plug switch and cord	500	1500	17.00



Electric Broiler.

G. E. Electric Broilers.

The heating element is the removable unit type as in the G. E. stove. The heat is right and is always under control.

No.			Each.
40815.	3-heat, 1200–400 watts	95–105 volts	$22.00
38654.	,, 1200–400 ,,	105–115 ,,	22.00
40816.	,, 1200–400 ,,	115–125 ,,	22.00



Electric Grid.

G. E. Electric Grids.

Similar to the G. E. Broilers but with a corrugated surface. Aluminum casting, polished.

No.			Each.
40328.	3-heat, 900–225 watts,	95–105 volts	$24.00
40329.	,, 900–225 ,,	105–115 ,,	24.00
40330.	,, 900–225 ,,	115–125 ,,	24.00

BROOKLYN Strain Insulators (see I).

BROOMS.

Hand Brooms.

No. 233. Lay's rattan snow broom.....per doz., $5.50
The handle is nested in a small quantity of bamboo fibre. This prevents the reed becoming compressed so as to weaken it when it becomes soaked. Weight per doz., 33 lbs. Chisel points furnished at extra charge of...per doz., 3.00

No. 226. Lay's shop and power house broom, per doz., 5.50



No. 233. No. 233, with chisel points. No. 226.

Made from best quality broom corn and enough rattan round reed to make the broom strong and elastic. Formerly known as "Lay's No. 4 Rattan Mixed." Weight per dozen, 35 pounds.



No. 252.



No. 251.



Mogul Broom.



Chisel End.



No. 171.



Nos. 163, 164, 167.

BROOMS.

Hand Brooms (Continued).

No. 251. Lay's switch and frog broom, without handles, 12 in.....per doz., $8.00
No. 251. Lay's switch and frog broom, without handles, 14 in.....per doz., 9.00
Handles extra..... ,, .50

Made of steel wire, five inches projection and wires placed so that sweeping is done by pushing it endwise. Handle holes provided so that handle may be reversed. Four rows of wires used so as to make brush narrow for sweeping in confined spaces.

No. 252. Lay's rattan push broom, without handles per doz., $6.50
Handles extra..... ,, .50

Made of prime quality round rattan reed fastened with staples. Block, 16 inches long, 5 rows wide.

		Wt. per Doz.	Per Gr.
No. 235.	" Mogul " snow and switch broom.....	27 lbs.	$135.00
,, 235C.	Ditto with chisel handle.....	34 ,,	153.75

All round rattan brooms made from double length fibre, with good hard wood handles and steel bands. Impossible for handles or fibre to work loose.

		Wt. per Doz.	Per Gr.
No. 238.	" Mogul " snow and switch broom.....	33 lbs.	$97.50
,, 238C.	Ditto with chisel handle.....	40 ,,	116.25

Rattan and bamboo mixed, otherwise same as above.

No. 170. Osborn steel wire switch broom.....per gross, $110.00
,, 171. Ditto with chisel handle ..... ,, 125.00

Length of block 11 inches, length of wires 4½ inches projection, 3 rows.

Track Brooms (see Holders).

The Osborn steel wire track brooms are made in various sizes to fit both upright and flat guard board holders as follows:

No.		Length.	Width.	Length Wire.	List. per Gr.
160.	Heavy round end.....	6	5½	4½	$200.00
161.	Medium, square ends.....	8	4	4	100.00
162.	Extra heavy, square ends.....	8¼	6¼	6	300.00
163.	Medium, Acme pattern.....	8	3¼	4	100.00
164.	Heavy, Acme pattern.....	8	4	4½	134.00
165.	Heavy, square ends.....	8	4	4¾	125.00
166.	Stiff, medium heavy, square ends.....	7	3½	3	96.00
167.	Very stiff, extra heavy, Acme pattern,	7	3½	3	150.00

BRUSHES, see following headings:

Brushes, Carbon.
,, Car Washing.
,, Copper and Alloy.
,, Copper Finger.
,, Copper Leaf.
,, Dust.
,, Shellac.
,, Woven Wire.

BRUSHES, Carbon.

Carbon Brushes for Stationary Motors.

6 x ½ x ¼.....	per 100,	$4.00	6 x 1¼ x ¼..... per 100,	$8.00
6 x ½ x ⅜.....	,,	4.00	6 x 1¼ x ⅜..... ,,	9.50
6 x ½ x ½.....	,,	5.00	6 x 1¼ x ½..... ,,	10.50
6 x ¾ x ¼.....	,,	4.00	6 x 1¼ x ⅝..... ,,	12.00
6 x ¾ x ⅜.....	,,	5.00	6 x 1¼ x ¾..... ,,	14.00
6 x ¾ x ½.....	,,	6.50	6 x 1¼ x ⅞..... ,,	15.50
6 x ¾ x ⅝.....	,,	7.50	6 x 1¼ x 1..... ,,	17.00
6 x ¾ x ¾.....	,,	8.50	6 x 1¼ x 1⅛..... ,,	18.50
6 x 1 x ¼.....	,,	6.50	6 x 1¼ x 1¼..... ,,	20.50
6 x 1 x ⅜.....	,,	7.50	6 x 1½ x ¼..... ,,	9.50
6 x 1 x ½.....	,,	8.50	6 x 1½ x ⅜..... ,,	11.00
6 x 1 x ⅝.....	,,	10.00	6 x 1½ x ½..... ,,	13.00
6 x 1 x ¾.....	,,	11.00	6 x 1½ x ⅝..... ,,	14.50
6 x 1 x ⅞.....	,,	12.50	6 x 1½ x ¾..... ,,	16.50
6 x 1 x 1	,,	13.50	6 x 1½ x ⅞..... ,,	18.50

(*Continued on next page.*)

BRUSHES, Carbon.

Carbon Brushes for Stationary Motors (Continued).

6 x 1½ x 1	per 100, $20.50	6 x 2¼ x ⅝	per 100, $22.00
6 x 1½ x 1⅛	,, 22.50	6 x 2¼ x ¾	,, 25.00
6 x 1½ x 1¼	,, 24.50	6 x 2¼ x ⅞	,, 28.00
6 x 1½ x 1⅜	,, 26.00	6 x 2¼ x 1	,, 30.50
6 x 1½ x 1½	,, 28.00	6 x 2¼ x 1⅛	,, 33.50
6 x 2 x ¼	,, 12.50	6 x 2¼ x 1¼	,, 36.50
6 x 2 x ⅜	,, 15.00	6 x 2¼ x 1⅜	,, 39.00
6 x 2 x ½	,, 17.00	6 x 2¼ x 1½	,, 42.00
6 x 2 x ⅝	,, 19.50	6 x 2½ x ¼	,, 15.50
6 x 2 x ¾	,, 22.00	6 x 2½ x ⅜	,, 18.50
6 x 2 x ⅞	,, 25.00	6 x 2½ x ½	,, 21.50
6 x 2 x 1	,, 27.00	6 x 2½ x ⅝	,, 24.50
6 x 2 x 1⅛	,, 30.00	6 x 2½ x ¾	,, 28.00
6 x 2 x 1¼	,, 32.50	6 x 2½ x ⅞	,, 31.00
6 x 2 x 1⅜	,, 35.00	6 x 2½ x 1	,, 34.00
6 x 2 x 1½	,, 37.50	6 x 2½ x 1⅛	,, 37.50
6 x 2¼ x ¼	,, 14.00	6 x 2½ x 1¼	,, 40.50
6 x 2¼ x ⅜	,, 16.50	6 x 2½ x 1⅜	,, 43.50
6 x 2¼ x ½	,, 19.50	6 x 2½ x 1½	,, 47.00



Carbon Motor Brush.

Partridge Carbon Brushes for Street Car Motors.

The well known National Columbia, Partridge Special, and Solar High Grade brushes use the following list. Special sizes not listed will be furnished promptly. In ordering give length first, width or part bearing on commutator second, and thickness last. If beveled state exact degree of bevel desired. Intermediate sizes billed at next higher prices.

Partridge Carbon Brushes for General Electric Railway Motors.

	No.	Size.	Ordinary Grades per 100.	High Grades per 100.
Edison	6	2 x 1¾ x ½	$3.80	$11.40
,,	10	2¼ x 1¾ x 7/16	3.80	11.40
,,	14	2¼ x 1¾ x ½	3.80	11.40
,,	16	2¼ x 1¾ x ⅝	4.00	12.00
W. P.	30	2½ x 2¼ x ½	4.30	12.90
F. & S. R. G.	30	1¾ x 2¼ x ½	3.80	11.40
W. P.	50	2¼ x 2⅞ x ½	4.30	12.90
G. E.	800 & 1200	2 7/16 x 2¼ x ½ Beveled 10°	4.30	12.90
G. E.	1000	2¼ x 1⅜ x ½	3.80	11.40
,,	1000 large	2¼ x 2¾ x ½	4.30	12.90
,,	2000	2¼ x 1¾ x ⅝	4.00	12.00
,,	2000 large	2¼ x 3½ x ⅝	6.25	18.75
,,	51	2½ x 2 x ⅝	4.50	13.50
,,	52	2¼ x 1¼ x ½	3.80	11.40
,,	52 large	2¼ x 2½ x ½	4.30	12.90
,,	53	2¼ x 1½ x ⅝	4.00	12.00
,,	53 large	2¼ x 3 x ⅝	6.00	18.00
,,	54	2¼ x 3 x ⅜	5.25	15.75
,,	55	2 x 1¾ x 9/16	4.00	12.00
,,	56	2⅛ x 1¾ x 11/16	5.00	15.00
,,	57	2¼ x 1¾ x ⅝	4.00	12.00
,,	57 large	2¼ x 3½ x ⅝	6.25	18.75
,,	58	2¼ x 1⅜ x ½	3.80	11.40
,,	58 large	2¼ x 2¾ x ½	4.30	12.90
,,	60	2¼ x 1¼ x ½	3.80	11.40
,,	60 large	2¼ x 2½ x ½	4.30	12.90
,,	61	2¼ x 2 x ⅝	4.50	13.50
,,	62	2¼ x 2½ x ½	4.30	12.90
,,	65	2½ x 2½ x ⅝	5.50	16.50
,,	67	2¼ x 3⅜ x ½	5.75	17.25
,,	73	2¼ x 2½ x ½	4.30	12.90

BRUSHES, Carbon (Continued).

Partridge Carbon Brushes for Westinghouse Railway Motors.

	Nos.	Volts.	Size.	Ordinary Grades per 100.	High Grades per 100.
West.	3, 12, 12A, 12B	500	$2\frac{3}{4}$ x $2\frac{3}{8}$ x $\frac{1}{2}$	$4.30	$12.90
,,	48, 48A, 39, 46				
,,	39	220	$2\frac{3}{4}$ x $2\frac{3}{8}$ x $\frac{1}{2}$	4.30	12.90
,,	3, 12A, 48, 48 A	220	$2\frac{3}{4}$ x $2\frac{3}{8}$ x 1	8.50	25.50
,,	69C	250	$2\frac{3}{4}$ x $2\frac{1}{2}$ x 1	8.50	25.50
,,	53	220	$2\frac{3}{4}$ x $2\frac{1}{4}$ x $\frac{3}{4}$	7.00	21.00
,,	52	220	$2\frac{3}{4}$ x $1\frac{1}{2}$ x $\frac{3}{4}$	5.75	17.25
,,	56, 62, 76	500	$2\frac{3}{4}$ x 2 x $\frac{1}{2}$	4.30	12.90
,,	38, 38A, 38B, 47	500	$2\frac{3}{4}$ x $1\frac{1}{2}$ x $\frac{1}{2}$	4.00	12.00
,,	47A, 49, 49A				
,,	49B, 68, 68C				
,,	38, 38B, 49	220	$2\frac{3}{4}$ x $1\frac{1}{2}$ x $\frac{1}{2}$	4.00	12.00
,,	47, 49D, 52				
,,	69	500	$2\frac{3}{4}$ x $1\frac{1}{4}$ x $\frac{1}{2}$	4.00	12.00
,,	69C	350	$2\frac{3}{4}$ x $1\frac{1}{4}$ x $\frac{1}{2}$	4.00	12.00
,,	50C	500	$2\frac{1}{2}$ x 2 x $\frac{5}{8}$	4.50	13.50
	Without saddle recess				
,,	50D	220	$2\frac{1}{2}$ x 2 x $\frac{5}{8}$	4.50	13.50
	Without saddle recess				
,,			$2\frac{3}{4}$ x 3 x $\frac{1}{2}$	5.75	17.25
,,	81		$2\frac{3}{4}$ x 4 x $\frac{1}{2}$	7.50	22.50

Partridge Carbon Brushes for Steel Railway Motors.

Nos.	Size.	Ordinary Grades.	High Grades.
B, C-60 & C-60 Special	$2\frac{1}{4}$ x 2 x $3\frac{1}{4}$	per 100, $4.00	per 100, $12.00
18	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{2}$	,, 4.30	,, 12.90
20	$2\frac{1}{2}$ x $1\frac{1}{4}$ x $\frac{1}{2}$	,, 3.80	,, 11.40
22 & 22 Special	$2\frac{1}{2}$ x $2\frac{3}{4}$ x $\frac{1}{2}$	,, 4.30	,, 12.90
27	$2\frac{1}{2}$ x $1\frac{5}{8}$ x $\frac{1}{2}$	,, 3.80	,, 11.40
28	$2\frac{1}{2}$ x $1\frac{3}{8}$ x $\frac{1}{2}$	,, 3.80	,, 11.40
34	$2\frac{1}{2}$ x 2 x $\frac{1}{2}$	,, 4.30	,, 12.90

Partridge Carbon Brushes for Walker Railway Motors.

Nos.	Size.	Ordinary Grades.	High Grades.
3-N 800, 3-S 800	$2\frac{1}{2}$ x 2 x $\frac{5}{8}$	per 100, $4.50	per 100, $13.50
4-S 1000, 5-S 1200			
10-S 1200	$2\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{5}{8}$	,, 4.25	,, 12.75
10-S 2000 large	$2\frac{1}{2}$ x 3 x $\frac{5}{8}$	,, 6.00	,, 18.00

10° bevel on all.



Le Valley Vitæ Carbon Brushes for Street Car Motors.

This brush will not cut or scratch the commutator, hence no sandpapering or turning down is required.

It constantly lubricates the commutator without gumming.

The commutator is preserved five times longer by the use of this brush.

This brush runs many degrees cooler than any other.

It has a lower resistance, gives better contact, and has greater conductivity than any other.

It wears smooth as velvet; never crumbles nor breaks.

It throws off no carbon dust whatever, thus obviating one of the prime causes of short-circuiting, particularly on enclosed motors.

In lots of less than 100 of a size, price is one cent higher than the 100-lot rate.

In ordering, always state length first, then width, and then thickness, in order here given.

BRUSHES, Carbon (Continued).

Le Valley Vitæ Carbon Brushes for General Electric Co. Motors.

		Net price each, in lots of 1,000.	500.	100.
Edison No. 6	2 x 1¾ x ½	$ .08	$ .09	$ .10
,, ,, 10	2¼ x 1¾ x 7/16	.08	.09	.10
,, ,, 14	2¼ x 1¾ x ½	.08	.09	.10
,, ,, 12–16	2¼ x 1¾ x ⅝	.08¾	.09¾	.10¾
W. P. 50	2¼ x 2⅞ x ½	.08¾	.09¾	.10¾
,, 30	2½ x 2¼ x ½	.08⅜	.09⅜	.10⅜
F. 30	1¾ x 2¼ x ½	.08	.09	.10
G. E. 800, bevelled 15°	2 7/16 x 2¼ x ½	.08⅜	.09⅜	.10⅜
,, 1200, bevelled 15°	2 7/16 x 2¼ x ½	.08⅜	.09⅜	.10⅜
,, 1000	2¼ x 1⅜ x ½	.08	.09	.10
,, 1000, large	2¼ x 2¾ x ½	.08¾	.09¾	.10¾
,, 2000	2¼ x 1¾ x ⅝	.08¾	.09¾	.10¾
,, 2000, large	2¼ x 3½ x ⅝	.12	.13	.14
,, 50, bevelled 15°	2 7/16 x 2¼ x ½	.08⅜	.09⅜	.10⅜
,, 51	2½ x 2 x ⅝	.09½	.10½	.11½
,, 52	2¼ x 1¼ x ½	.08	.09	.10
,, 52, large	2¼ x 2½ x ½	.08⅜	.09⅜	.10¾
,, 53	2¼ x 1½ x ⅝	.08¾	.09¾	.10⅜
,, 53, large	2¼ x 3 x ⅝	.11	.12	.13
,, 54	2¼ x 3 x ⅜	.08¾	.09¾	.10¾
,, 55	2¼ x 1¾ x 9/16	.08¾	.09¾	.10¾
,, 57	2¼ x 1¾ x ⅜	.08¾	.09¾	.10¾
,, 57, large	2¼ x 3½ x ⅝	.12	.13	.14
,, 58	2¼ x 1⅜ x ½	.08	.09	.10
,, 58, large	2¼ x 2¾ x ½	.08¾	.09¾	.10¾
,, 60	2¼ x 1¼ x ½	.08	.09	.10
,, 60, large	2¼ x 2½ x ½	.08⅜	.09⅜	.10⅜
,, 62	2¼ x 2½ x ½	.08⅜	.09⅜	.10⅜
,, 66	2¼ x 3¼ x 7/16	.09½	.10½	.11½
,, 67	2¼ x 3⅜ x ½	.09½	.10½	.11½
,, 67	2¼ x 3⅜ x ⅜	.09½	.10½	.11½
,, 73	2¼ x 2½ x ½	.08⅜	.09⅜	.10⅜

Le Valley Vitæ Carbon Brushes for Westinghouse Motors.

Nos. 3, 12, 12A, 12B, 12C	2¾ x 2⅜ x ½	$ .08¾	$ .09¾	$ .10¾
,, 38, 38A, 38B	2¾ x 1½ x ½	.08	.09	.10
,, 39, 40, 41	2¾ x 2⅜ x ½	.08¾	.09¾	.10¾
,, 49A	2¾ x 1½ x ½	.08	.09	.10
,, 49A, large	2¾ x 3 x ½	.09	.10	.11
,, 50B and 50C	2½ x 2 x ⅝	.09½	.10½	.11½
,, 50E	3 x 2 x ⅝	.10½	.11½	.12½
,, 56 and 62	2¾ x 2 x ½	.08¾	.09¾	.10¾
,, 81	2¾ x 4 x ½	.11	.12	.13
	2¾ x 1¼ x ⅜	.08	.09	.10
	2¾ x 1¾ x ½	.08⅜	.09⅜	.10⅜

Le Valley Vitæ Carbon Brushes for Walker Motors.

No. 3- N. 800 ,, 3- S. 800 ,, 4- S. 1000 ,, 5- S. 1200	10° bevel on all. 2½ x 2 x ⅝	$ .09½	$ .10½	$ .11½
,, 10- S. 2000	2½ x 1½ x ⅝	.08¾	.09¾	.10¾
,, 10- S. 2000, large	2½ x 3 x ⅝	.11	.12	.13
,, 15- S. 3000	3 x 2½ x ¾	.14	.15	.16
,, 15- L. 3000	3 x 2 13/32 x 23/32	.14	.15	.16

Le Valley Vitæ Carbon Brushes for Sprague Motors.

Johnson-Lundell, 25 H. P.	2 x 2¼ x ¾	$ .10	$ .11	$ .12
Railway motor, No. 1	2 x 1½ x ¾	.09	.10	.11
,, ,, ,, 2	2½ x 2¼ x ¾	.11	.12	.13
,, ,, ,, 6	2½ x 1¾ x ½	.08	.09	.10

BRUSHES, **Carbon** (Continued).

Le Valley Vitæ Carbon Brushes for Lorain Steel Motors.

		Net price each in lots of 1,000.	500.	100.
No. 18	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{2}$	$ .08$\frac{3}{4}$	$ .09$\frac{3}{4}$	$ .10$\frac{3}{4}$
,, 20	$2\frac{1}{2}$ x $1\frac{1}{4}$ x $\frac{1}{2}$	.08$\frac{3}{8}$	.09$\frac{3}{8}$	.10$\frac{3}{8}$
,, 22 and 22 Special	$2\frac{1}{2}$ x $2\frac{3}{4}$ x $\frac{1}{2}$	08$\frac{3}{4}$	.09$\frac{3}{4}$	.10$\frac{3}{4}$
,, 27	$2\frac{1}{2}$ x $1\frac{5}{8}$ x $\frac{1}{2}$	08	.09	.10
,, 28	$2\frac{1}{2}$ x $1\frac{3}{8}$ x $\frac{1}{2}$	08	.09	.10
,, 34	$2\frac{1}{2}$ x 2 x $\frac{1}{2}$	08$\frac{3}{8}$	.09$\frac{3}{8}$	.10$\frac{3}{8}$
,, B-60 and 60 Special	$2\frac{1}{4}$ x 2 x $\frac{3}{64}$	.08$\frac{3}{8}$	.09$\frac{3}{8}$	.10$\frac{3}{8}$

NOTE. — In lots of less than 100 of a size price is one cent higher than the 100-lot rate.

Le Valley Vitæ Carbon Generator Brushes.

The well known Le Valley Vitæ brushes are made in three grades,— hard, medium, and soft, — for all standard styles of generators and any special size to order. These generator grades are the highest grade brushes made and average about $ .25 to $ .35 list each for the ordinary machines. The saving in wear on commutators, however, more than offsets their high cost. Prices on all sizes on application.

Copley-Senior Carbon Brushes for Railway Motors.

The Copley-Senior Carbon Brush, owing to its uniformity, will not cut or scratch the commutator, is thoroughly self-lubricating, and will remain so until worn out.

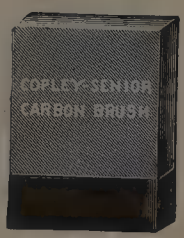
It will outwear any brush on the market; works many degrees cooler than other brushes, and throws off no dust.

It is specially adapted for high speed, long runs, and steep grades.

In ordering, state conditions, so that we may select the proper grade for your requirements.

Every brush guaranteed to give satisfaction.

In ordering, give length first, width second, and thickness third, as given in the following list.



Copley-Senior Carbon Brushes for Westinghouse Motors.

NOTE. — The price of brushes in quantities of less than 100 of a size is $\frac{1}{2}$ cent higher than the 100-lot rate.

Nos.	Volts.	Size.	Net price each in lots of 1,000.	500.	100.
3, 12A, 12B, 48 / 48A, 39, 46	500	$2\frac{3}{4}$ x $2\frac{3}{8}$ x $\frac{1}{2}$ in.	$ .08$\frac{3}{8}$	$ .08$\frac{7}{8}$	$ .09$\frac{3}{8}$
39	220	$2\frac{3}{4}$ x $2\frac{3}{8}$ x $\frac{1}{2}$,,	.08$\frac{3}{8}$	.08$\frac{7}{8}$	.09$\frac{3}{8}$
3, 12A, 48, 48A	220	$2\frac{3}{4}$ x $2\frac{3}{8}$ x 1 ,,	.11$\frac{1}{2}$	.12	.12$\frac{1}{2}$
69C	250	$2\frac{3}{4}$ x $2\frac{1}{2}$ x 1 ,,	.11$\frac{1}{2}$	.12	.12$\frac{1}{2}$
69C	350	$2\frac{3}{4}$ x $1\frac{1}{4}$ x $\frac{1}{2}$,,	.08	.08$\frac{1}{2}$	.09
69	500	$2\frac{3}{4}$ x $1\frac{1}{4}$ x $\frac{1}{2}$,,	.08	.08$\frac{1}{2}$	.09
53	220	$2\frac{3}{4}$ x $2\frac{1}{4}$ x $\frac{3}{4}$,,	.10$\frac{1}{2}$	.11	.11$\frac{1}{2}$
52	220	$2\frac{3}{4}$ x $1\frac{1}{2}$ x $\frac{3}{4}$,,	.09$\frac{1}{2}$	.10	.10$\frac{1}{2}$
50F	500	$2\frac{3}{4}$ x $3\frac{3}{8}$ x $\frac{1}{2}$,,	.11	.11$\frac{1}{2}$	.12
50B, 50C, 50E, 50L	500	$2\frac{1}{2}$ x 2 x $\frac{5}{8}$,,	.09	.09$\frac{1}{2}$	.10
56, 62, 76, 85	500	$2\frac{3}{4}$ x 2 x $\frac{1}{2}$,,	.08$\frac{3}{8}$	.08$\frac{7}{8}$	.09$\frac{3}{8}$
38, 38A, 38B, 47 / 47A, 49, 49A, 49B / 68, 68C	500	$2\frac{3}{4}$ x $1\frac{1}{2}$ x $\frac{1}{2}$,,	.08	.08$\frac{1}{2}$	.09
38, 38B, 49, 47 / 49D, 52, 46	220	$2\frac{3}{4}$ x $1\frac{1}{2}$ x $\frac{1}{2}$,,	.08	.08$\frac{1}{2}$	.09
92	550	$2\frac{3}{4}$ x $1\frac{1}{2}$ x $\frac{1}{2}$,,	.08	.08$\frac{1}{2}$	.09
95, 101B	500	$2\frac{1}{4}$ x $1\frac{5}{8}$ x $\frac{1}{2}$,,	.08	.08$\frac{1}{2}$	.09
56, 96	220	$2\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{3}{4}$,,	.09$\frac{3}{8}$	.09$\frac{7}{8}$	.10$\frac{3}{8}$
76, 76A	220	$2\frac{3}{4}$ x $1\frac{3}{4}$ x 1 ,,	.09$\frac{3}{4}$	.10$\frac{1}{4}$	.10$\frac{3}{4}$
93	550	$2\frac{3}{4}$ x 2 x $\frac{1}{2}$,,	.08$\frac{3}{8}$	.08$\frac{7}{8}$	.09$\frac{3}{8}$
86	570	$2\frac{3}{4}$ x 3 x $\frac{5}{8}$,,	.11	.11$\frac{1}{2}$	.12
109	500	$2\frac{3}{4}$ x $1\frac{3}{4}$ x $\frac{5}{8}$,,	.09	.09$\frac{1}{2}$	.10
112	550	$2\frac{3}{4}$ x $2\frac{3}{8}$ x $\frac{1}{2}$,,	.08$\frac{3}{8}$	.08$\frac{7}{8}$	.09$\frac{3}{8}$
113	550	$2\frac{3}{4}$ x $2\frac{1}{4}$ x $\frac{5}{8}$,,	.09$\frac{1}{2}$	.10	.10$\frac{1}{2}$
83	600	$2\frac{3}{4}$ x $2\frac{3}{8}$ x $\frac{1}{2}$,,	.08$\frac{3}{8}$	.08$\frac{7}{8}$	.09$\frac{3}{8}$
		Without Saddle Recess.			
50D	220	$2\frac{1}{2}$ x 2 x $\frac{5}{8}$ in.	.09	.09$\frac{1}{2}$	.10
		$2\frac{3}{4}$ x 3 x $\frac{1}{2}$,,	.09$\frac{3}{4}$	.10$\frac{1}{4}$	.10$\frac{3}{4}$
81		$2\frac{3}{4}$ x 4 x $\frac{1}{2}$,,	.11	.11$\frac{1}{2}$	.12

BRUSHES, Carbon (Continued).

Copley-Senior Carbon Brushes for Walker Motors.

10° bevel on all.

NOTE. — The price of brushes in quantities of less than 100 of a size is ½ cent higher than the 100-lot rate.

Nos.	Size.	Lots of 1,000.	500.	100.
3-N 800, 3-S 800 } 4-S 1000, 5-S 1200 }	2½ x 2 x ⅝ in	$ .09	$ .09½	$ .10
10-S 1200	2½ x 1½ x ⅝ ,,	.08⅜	.08⅞	.09⅜
10-S 2000, large	2½ x 3 x ⅝ ,,	.09¾	.10¼	.10¾

Copley-Senior Carbon Brushes for General Electric Motors.

NOTE. — The price of brushes in quantities of less than 100 of a size is ½ cent higher than the 100-lot rate.

Nos.	Volts.	Sizes.	Lots of 1,000.	500.	100.
Edison 6		2 x 1¾ x ½ in	$ .08	$ .08½	$ .09
,, 10		2¼ x 1¾ x 7/16 ,,	.08	.08½	.09
,, 14		2¼ x 1¾ x ½ ,,	.08	.08½	.09
,, 16		2¼ x 1¾ x ⅝ ,,	.08¼	.08¾	.09¼
L. W. P. 5	220	2 x 1⅛ x ⅞ ,,	.08	.08½	.09
,, 5	500	1½ x 1⅛ x ⅜ ,,	.08	.08½	.09
,, 20A	500	2¼ x 2⅞ x ½ ,,	.08⅜	.08⅞	.09⅜
W. P. 30		2½ x 2¼ x ½ ,,	.08⅜	.08⅞	.09⅜
,, 30	500	1¼ x 2¼ x ½ ,,	.08	.08½	.09
,, 50	500	2¼ x 2⅞ x ½ ,,	.08⅜	.08⅞	.09⅜
F. & S. R. G. 30		1¾ x 2¼ x ½ ,,	.08	.08½	.09
C. B. 14	250	1¾ x ⅞ x ⅝ ,,	.08	.08½	.09
,, 14	500	1¾ x ⅞ x ⅝ ,,	.08	.08½	.09
,, 15	250	1¾ x ⅞ x ⅝ ,,	.08	.08½	.09
,, 15	500	1¾ x ⅞ x ⅝ ,,	.08	.08½	.09
G. E. 800	250	2½ x 2¼ x ¾ ,,	.10½	.11	.11½
,, beveled 800	500	2 7/16 x 2¼ x ½ ,,	.08⅜	.08⅞	.09⅜
,, 1000	500	2¼ x 1⅜ x ½ ,,	.08	.08½	.09
,, 1000	large	2¼ x 2¾ x ½ ,,	.08⅜	.08⅞	.09⅜
,, beveled 1200	500	2 7/16 x 2¼ x ½ ,,	.08⅜	.08⅞	.09⅜
,, 1200	250	2½ x 2¼ x ⅞ ,,	.10½	.11	.11½
,, 2000	500	2¼ x 1¾ x ⅝ ,,	.08¼	.08¾	.09¼
,, 2000	large	2¼ x 3½ x ⅝ ,,	.10	.10½	.11
,, 51	500	2¼ x 2 x ⅝ ,,	.09	.09½	.10
,, 51	250	2¼ x 2 x 1 ,,	.10	.10½	.11
,, 52	500	2¼ x 1¼ x ½ ,,	.08	.08½	.09
,, 52	250	2¼ x 1¼ x 1 ,,	.09¾	.10¼	.10¾
,, 52	large	2¼ x 2½ x ½ ,,	.08⅜	.08⅞	.09⅜
,, 53	500	2¼ x 1½ x ⅝ ,,	.08¼	.08¾	.09¾
,, 53	250	2¼ x 1½ x ¾ ,,	.09	.09½	.10
,, 53	large	2¼ x 3 x ⅝ ,,	.09¾	.10¼	.10¾
,, 54	500	2¼ x 3 x ⅜ ,,	.09⅜	.09⅞	.10⅜
,, 55	500	2 x 1¾ x 9/16 ,,	.08¼	.08¾	.09¼
,, 55	250	2 x 1¾ x 1¼ ,,	.10	.10½	.11
,, 56		2⅛ x 1¾ x 11/16 ,,	.09¼	.09¾	.10¼
,, 57	500	2¼ x 1¾ x ⅝ ,,	.08¼	.08¾	.09¼
,, 57	250	2¼ x 1¾ x 1⅛ ,,	.10	.10½	.11
,, 57	large	2¼ x 3½ x ⅝ ,,	.10	.10½	.11
,, 58	large	2¼ x 2¾ x ½ ,,	.08⅜	.08⅞	.09⅜
,, 58	500	2¼ x 1⅜ x ½ ,,	.08	.08½	.09
,, 58	250	2¼ x 1⅜ x ⅞ ,,	.08⅜	.08⅞	.09⅜
,, 58	110	2¼ x 1⅜ x 1¼ ,,	.09¾	.10¼	.10¾
,, 60	500	2¼ x 1¼ x ½ ,,	.08	.08½	.09
,, 60	250	2¼ x 1¼ x ⅞ ,,	.08⅜	.08⅞	.09⅜
,, 60	large	2¼ x 2½ x ½ ,,	.08⅜	.08⅞	.09⅜
,, 61	500	2¼ x 2 x ⅝ ,,	.09	.09½	.10
,, 61	250	2¼ x 2 x ⅞ ,,	.09¾	.10¼	.10¾
,, 62	500	2¼ x 2½ x ½ ,,	.08⅜	.08⅞	.09⅜
,, 64	500	2¼ x 2¼ x ½ ,,	.08⅜	.08⅞	.09⅜
,, 65		2½ x 2½ x ⅝ ,,	.09½	.10	.10½
,, 66	500	2¼ x 3½ x 9/16 ,,	.10	.10½	.11
,, 67	500	2¼ x 3⅜ x ½ ,,	.09¾	.10¼	.10¾
,, 67		2¼ x 3⅜ x ⅜ ,,	.09¾	.10¼	.10¾
,, 69	500	2 x 2¼ x ⅝ ,,	.09	.09½	.10
,, 70	500	2¼ x 1⅞ x ½ ,,	.08¼	.08¾	.09¼
,, 73	500	2¼ x 2½ x ½ ,,	.08⅜	.08⅞	.09⅜
,, 74	500	2¼ x 2¼ x ½ ,,	.08⅜	.08⅞	.09⅜
,, 75		2¼ x 1⅞ x 7/16 ,,	.08¼	.08¾	.09¼

BRUSHES, Carbon (Continued).

Copley-Senior Carbon Brushes for Air Brake Motors.*

	Sizes.	Lots of 1,000.	500.	100.
AAI	$1\frac{3}{8}$ x $\frac{3}{4}$ x $\frac{3}{8}$ in.	$ .08	$ .08½	$ .09
	$1\frac{1}{2}$ x $\frac{7}{8}$ x $\frac{3}{8}$,,	.08	.08½	.09

Copley-Senior Carbon Brushes for Steel Motors.*

Nos.	Sizes.	Lots of 1,000.	500.	100.
B, C-60 C-60, Special	$2\frac{1}{4}$ x 2 x $\frac{31}{64}$ in.	$ .08$\frac{3}{8}$	$ .08$\frac{7}{8}$	$ .09$\frac{3}{8}$
18	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{2}$,,	.08$\frac{3}{8}$	.08$\frac{7}{8}$	.09$\frac{3}{8}$
20	$2\frac{1}{2}$ x $1\frac{1}{4}$ x $\frac{1}{2}$,,	.08	.08½	.09
22 and 22 Special	$2\frac{1}{2}$ x $2\frac{3}{4}$ x $\frac{1}{2}$,,	.08$\frac{3}{8}$	.08$\frac{7}{8}$	.09$\frac{3}{8}$
27	$2\frac{1}{2}$ x $1\frac{5}{8}$ x $\frac{1}{2}$,,	.08	.08½	.09
28	$2\frac{1}{2}$ x $1\frac{3}{8}$ x $\frac{1}{2}$,,	.08	.08½	.09
34	$2\frac{1}{2}$ x 2 x $\frac{1}{2}$,,	.08$\frac{3}{8}$	.08$\frac{7}{8}$	.09$\frac{3}{8}$

Copley-Senior Carbon Brushes for Sprague Motors.*

Names and Nos.	Sizes.	Lots of 1,000.	500.	100.
Johnson-Lundell, 25 H. P.	2 x $2\frac{1}{4}$ x $\frac{3}{4}$ in.	$ .10½	$ .11	$ .11½
Railway Motor, No. 1	2 x $1\frac{1}{2}$ x $\frac{3}{4}$,,	.09½	.10	.10½
,, ,, ,, 2	$2\frac{1}{2}$ x $2\frac{1}{4}$ x $\frac{3}{4}$,,	.10½	.11	.11½
,, ,, ,, 6	$2\frac{1}{2}$ x $1\frac{3}{4}$ x $\frac{1}{2}$,,	.08$\frac{3}{8}$	.08$\frac{7}{8}$	.09$\frac{3}{8}$

* The price of brushes in quantities of less than 100 of a size is ½ cent higher than the 100-lot rate.



Car Washing Brush.



Fountain Brush.



Copper, Arc Machine Brush.

BRUSHES, Car Washing.

Car Washing Brush.

With rubber band to protect head of brush from marring woodwork, etc. Wire drawn. All gray Okatka bristles.

No. 1 Extra	6- in. block	per doz.,	$48.00
,, 1	6 ,, ,,	,,	42.00
,, 2	5½ ,, ,,	,,	33.00
,, 3	5¼ ,, ,,	,,	24.00

Will furnish No. 1 Extra or No. 1 on solid rubber block to order.

Fountain Brush.

A small metal tube runs the length of the handle and at its lower end has a coupling to fit ordinary garden hose.

The head has several fine outlets which supply the bristles with a constant source of clean water.

No. S-931	Brush head only	each,	$6.00
,, S-932	Handle extra	per ft.,	.20

BRUSHES, Copper Finger.

No. S-933.....For T.-H. arc machine.....per set of 4, $ .50
State type of machine on which brushes are to be used.

BRUSHES, Copper and Alloy.

Wirt Brushes.

Thickness, Inches.	Length, Inches.	Width in Inches. ½	⅝	¾	⅞	1	1⅛	1¼	1⅜	1½	1⅝	1¾	1⅞	2
$\frac{3}{16}$	8	$ .45	$ .50	$ .55	$ .60	$ .65	$ .70	$ .75	$ .80	$ .85	$ .90	$ .95	$1.00	$1.05
	10	.55	.60	.65	.70	.75	.80	.90	.95	1.00	1.05	1.15	1.20	1.25
	12	.60	.65	.70	.80	.85	.95	1.00	1.10	1.15	1.20	1.30	1.35	1.40
¼	8	.65	.70	.80	*.85	*.90	1.00	*1.05	1.10	1.15	1.20	1.30	1.35	1.40
	10	.70	.80	.85	.95	1.05	1.10	1.20	1.25	1.35	1.40	1.50	1.60	1.65
	12	.75	.85	.95	1.05	1.15	1.25	1.35	1.40	1.50	1.60	1.70	1.80	1.90
$\frac{5}{16}$	8	*.80	.90	*.95	*1.05	*1.15	1.25	*1.30	1.35	*1.45	1.50	*1.60	1.70	1.75
	10	.90	1.00	1.10	1.20	1.30	1.40	1.50	1.60	1.70	1.75	1.85	*1.95	2.05
	12	.95	1.10	1.20	1.30	1.45	1.55	1.65	1.80	1.90	2.05	2.15	2.25	2.40
⅜	8	1.00	1.05	1.15	1.25	*1.35	1.45	1.55	1.65	1.70	1.80	1.90	2.00	2.10
	10	1.05	1.20	1.30	1.40	1.55	1.65	1.75	*1.90	2.00	2.10	2.25	*2.35	2.50
	12	1.10	1.30	1.45	1.60	1.75	1.85	2.00	2.15	2.30	2.40	2.55	2.70	2.85
$\frac{7}{16}$	8	1.15	1.25	1.35	1.45	1.60	1.70	1.80	1.90	2.00	2.10	2.25	2.35	2.45
	10	1.25	1.40	1.50	1.65	1.80	1.95	2.05	2.20	2.35	2.50	2.60	*2.75	2.90
	12	1.35	1.50	1.70	1.85	2.00	2.20	2.35	2.50	2.65	2.80	3.00	3.15	3.30
½	8	1.30	1.40	1.55	1.70	1.80	1.90	2.05	2.20	2.30	2.40	2.55	2.70	2.80
	10	1.50	1.60	1.75	1.90	2.05	2.20	2.35	2.50	2.70	2.85	3.00	*3.15	3.30
	12	1.55	1.75	1.90	2.10	2.30	2.50	2.70	2.85	3.05	3.25	3.40	3.60	3.80



Thickness is given for the middle of the brush.
Sizes marked thus (*) are carried in stock. Any size furnished promptly.
For price of 6-inch brush, subtract from 8-inch difference between 8 and 10.



Car Brush.



Globe Brush.



Varnish Brush.



Woven Wire Brush.



No. 513 Light.



No 513 Heavy.



No. 1564.



No. 1783.



No. 1784.



No. 1805.



No. 1817.



No. 1818.



No. 1600.



No. 232.



No. 235.

BRUSHES, Copper Leaf (special prices on application).

BRUSHES, Dust (see also Brooms).

Counter or Car Brush.

No. 2.	Extra, all bristles	per doz.,	$4.00
,, 3.	,, ,, ,,	,,	6.50
,, 4.	,, ,, ,,	,,	8.50
,, 5.	,, ,, ,,	,,	11.00
,, 6.	Black, all bristles, heavy	,,	14.00
,, 8.	,, ,, ,, very heavy	,,	20.00
,, 9.	Wire drawn, all bristles, very heavy,	per doz.,	30.00

Globe Brush.

For dusting large arc globes, etc.

			Per Doz.
No. 13.	Round, "Gem," fibre centre,	$3\frac{3}{4}$-in. bristles,	$5.60
,, 14.	,, ,, ,, ,,	4 ,, ,,	6.60
,, 15.	,, ,, ,, ,,	$4\frac{1}{4}$,, ,,	7.30
,, 33.	,, "Pekin," all bristles,	$3\frac{3}{4}$,, ,,	10.00
,, 34.	,, ,, ,, ,,	4 ,, ,,	10.80
,, 35.	,, ,, ,, ,,	$4\frac{1}{4}$,, ,,	11.70

Inner Globe Brush.

For cleaning inner globes of the carbon deposit.

No. 1.	Gray bristles	per doz.,	$2.40
,, 2.	Better quality	,,	3.50

BRUSHES, Shellac.

Shellac Brush No. S-934.

Suitable brushes furnished for all kinds of work, either for paint, varnish, shellac or glue.

For shellac work on moulding we furnish a good brush at ..... per in. in width, $ .25

BRUSHES, Woven Wire.

	Width Inches.	Thickness. $\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$
6 in. length.	$\frac{1}{2}$	$ .75	$ .85	$ .90	$ .95					
	$\frac{5}{8}$	.90	.95	1.00	1.05					
	$\frac{3}{4}$	.95	1.00	1.05	1.10	$1.15				
	$\frac{7}{8}$	1.05	1.10	1.15	1.30	1.50				
	1	1.10	1.20	1.30	1.50	1.80	$2.10	$2.40		
	$1\frac{1}{8}$		1.40	1.50	1.80	2.15	2.40	2.75		
7 in. length.	$1\frac{1}{4}$		1.60	1.75	2.00	2.25	2.75	3.30		
	$1\frac{5}{16}$		1.65	1.80	2.05	2.30	2.80	3.40	$4.10	
	$1\frac{3}{8}$		1.75	1.85	2.05	2.35	2.90	3.45	4.20	
	$1\frac{7}{16}$		1.80	1.90	2.10	2.45	3.00	3.55	4.30	$5.10
	$1\frac{1}{2}$		1.90	1.95	2.20	2.50	3.00	3.60	4.40	5.20
	$1\frac{5}{8}$		2.00	2.10	2.30	2.60	3.10	3.70	4.50	5.30
	$1\frac{3}{4}$		2.10	2.20	2.40	2.70	3.20	3.80	4.60	5.40
	$1\frac{13}{16}$		2.20	2.30	2.50	2.70	3.30	3.85	4.70	5.50
	$1\frac{7}{8}$		2.30	2.40	2.60	2.80	3.40	3.90	4.80	5.60
	2		2.40	2.50	2.70	3.00	3.50	4.00	4.90	5.70

Longer or shorter lengths, different widths and thicknesses, at proportionate prices.

Any size made to order.

BRUSH Holder, Track (see H).

BUFFALO Grip (see Come-Along).

BUILDING Fixture (see Fixture, pole and wall).

BUMPERS, Car Seat.

Soft Rubber Car Seat Bumpers.

Style No.	513 light	per 100,	$6.00
,, ,,	513 heavy	,,	7 00
,, ,,	1564	,,	5.00
,, ,,	1783	,,	4.50
,, ,,	1784	,,	4.00
,, ,,	1805	,,	3.00
,, ,,	1817	,,	2.00
,, ,,	1818	,,	5.00
,, ,,	1600. Made in 1 ft. lengths to cut as desired	per lb.,	1.00
Style No.	232. With screw	per gross,	2.50
,, ,,	235. ,, ,,	,,	2.50

(Made with brass washers.)



No. 71S.R.



No. 71B.



No. 82B.



No. 2B.



No. 2 By-Pass.



No. 975.



No. 976.



Bray Burner.



Bray Tip.



No. 978.



No. 977



No. 45813.

BURGLAR **Alarms** (see Springs).

BURNERS, see following headings:
Burners, Gas.
„ Gas Lighting.

BURNERS, GAS.

Welsbach Burners.

No. 71S.R.
Improved Welsbach burner, with removable side-rod fittings and improved centre-hole regulating Bunsen ..... per doz., $5.50
per 100, 42.50

No. 71B.
A new Welsbach burner, with improved centre-hole regulating Bunsen, for use with 2-in. glass ware ..... per doz., $4.50
per 100, 36.00

No. 82B.
A new Welsbach burner for use on combination gas and electric fixtures, takes the standard electric glass ware, and thus permits the use of same style and size globe as used on incandescent electric lights. Finished in brush or polished brass ..... per doz., $5.00
per 100, 40.00

No. 2B.
Consol gallery burner ..... per doz., $1.28
per 100, 9.20

No 2. Plain By-pass.
The No. 2 Welsbach plain by-pass will not leak when used with natural gas ..... per doz., $2.25
per 100, 24.00

Empire Burner.

No. 975. Empire burner only, brass ..... per gross, $9.00
„ 976. „ „ base only, brass, „ 3.50

Bray Burner, Union Jet,

Gives a large, clear flame with least consumption of gas.
No. S-935. Burner only ..... per gross, $12.00
„ S-936. Bray tip only ..... „ 5.00

Pillars.

No. 978. Brass pillar only ..... per gross, $1.50

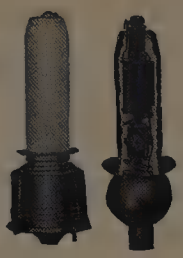
Tips.

No. 977. Lava gas tips ..... per gross, $1.50

BURNERS, Gas Lighting.

Automatic Burners.

Advance Automatic Burner.
Magnets cannot short-circuit.
Valve mechanism is simple and effective.
Hard rubber insulation throughout.
Binding-posts are extra long and cannot twist.
The smallest operative automatic.
Requires the least battery power.
Can be attached to fixture without danger of deranging the mechanism.
Extended core heads increase " pull " on armature.
Means of opening valve and igniting burner with a match should battery power give out.
Yellow insulating bushings instead of black for leading-in wires improve the appearance of the automatic on the fixture.
No. 45813. Advance automatic burner ..... each, $6.00



No. 50662. No. 50660.

BURNERS, Gas Lighting.

Automatic Burners (Continued).

Advance Exposed Candle Automatic.

Similar to the regular Advance automatic but adapted to candle burner.

No. 50662. Advanced exposed candle automatic burner.....each, $8.50
,, 50663. Special fitting..... ,, 9.00

Advance Concealed Candle Automatic.

A practical automatic candle burner avoiding the unsightliness of the automatic of ordinary size. Allows of uniformity of all burners or chandeliers or fixtures as the active mechanism is contained in the candle itself.

No. 50660. Advance concealed candle automatic burner.....each, $8.50
,, 50661. Special fitting..... ,, 9.00



No. 16625.

Advance Automatic Welsbach Attachment.

Pressing the white button of the key on the wall serves to open both the main and auxiliary valves, at the same time operating the circuit breaker. A spark created ignites the gas in the auxiliary tube, which shoots up and lights the gas in the attachment. This can be adapted to use with the No. 61 or No. 71 Welsbach burners and many other styles of incandescent burners.

No. 16625. Style F Advance automatic Welsbach attachment for regular gas..... $8.00
No. 16626. Style G Advance automatic Welsbach attachment for gasoline 9.00
No. 16627. Style H Advance automatic Welsbach attachment for natural gas 9.00



Nos. 45812 and 45811.

Advance Gasoline Automatic.

An Advance automatic especially adapted for the use of gasoline gas.

No. 50653. Advance gasoline automatic burner.....each, $9.00

Improved Advance Acetylene Burner.

The burner operates as follows: The armature which controls the sparking mechanism operates in conjunction with a tube, one end of which is brought opposite the burner orifice, conducting the gas to the sparking device, igniting it and lighting the main burner by contagion.

The tube then drops back by gravity, and remains in its normal position at a sufficient distance away not to affect the flame.

No. 45812. Advance automatic acetylene burner, fitted with acetylene tip.....each, $8.50



Boston Automatic.

Boston Automatic Burner.

The Boston Automatic Burner is one of the best known and most reliable on the market. It lights instantly as it has no ratchet.

Insulation and workmanship are of the best throughout.

No. S-940. Boston automatic..... each, $6.00

H-C Automatic Burner.

Positive in action. Pole extensions are used on both magnets of this burner. They are shaped in such manner as to greatly increase the magnetic field so that no adjustment is required for different battery strengths.

The valve is opened by a ratchet motion.

No. 1075. H-C Automatic burner..... each, $6.00



H-C Automatic.

Vibrator Burner.

Advance Vibrator Acetylene Burner.

The mechanism of this burner is composed of the sparking device of the automatic, without the valve for turning on the gas. The gas is turned on at some point more or less distant from the burner, and is lighted by the spark mechanism of the burner connected with a push-button conveniently placed. The gas must also be turned off by hand. A number can be lighted at one time by a single pressure of a push-button. It is, therefore, especially applicable for use in show windows, where match or taper ignition is so dangerous, for lighting burners of chandeliers in halls and churches which are difficult to reach, and other work of a similar nature.

While on tests we have lighted over twelve burners at one time, we do not advocate placing more than this number on a circuit. A hall or church having, therefore, 60 burners, distributed on five chandeliers, and not over twelve burners to each chandelier, would require five circuits.

In this burner, as with our other styles of acetylene burners, the mechanism is entirely separate from the acetylene burner or tip.



H-C Automatic.

No. 45811. Advance vibrator burner, fitted with acetylene tip...each, $4.50

BURNERS, Gas Lighting (Continued).



No. 22.



No. 50654.

Candle Burners.

Advance Candle Burners.

The mechanism of this style is very simple and positive, containing no delicate parts. The special lift-over device prevents short circuiting at the electrodes when the gas is being extinguished.

No. 50654. Advance candle burner.....each, $3.60
,, 50655. Special fitting..... ,, 4.10

Simple Candle Burner No. 20.

With slip and without chain pull.....each, $2.60
Special fitting..... ,, 3.10

Ratchet Candle Burner No. 22.

With slip and without chain pull.....each, $3.10
Special fitting..... ,, 3.60

Style A Stem Attachment.

The style A attachment is now the only stock style of stem attachment for use with incandescent burners, as the No. 33 Welsbach burners which required the style C are no longer manufactured. The style A operates successfully with the new Welsbach styles No. 61 and No. 71, and can also be used with similar types manufactured by other concerns.



No. 16622.

No. 16622. Style A Welsbach attachment.....each, $2.10
,, 16623. ,, D Welsbach attachment for gasoline gas.. ,, 2.30
,, 16624. ,, E Welsbach attachment for natural gas.... ,, 2.50

Advance Stem Burner.

When the key is turned for lighting the electrodes make contact, which creates a spark, thus igniting the gas. When extinguishing it, or turning it down, which is possible with the Advance style only, the movable electrode does not touch the fixed one, thus eliminating all possibility of short circuiting the burner after it has been lighted. The easy method of operating prevents bending of fixtures, as was the case with the old style pull burner. The saving in gas, owing to the graduated flame feature, makes the Advance type the cheapest burner on the market.

No. 45685. Advance burner with stem, polished brass.....each, $1.80
per doz., 20.40
No. 45686. Advance stems only.....each, .20



No. 45685. No. 45687.

Advance Side Lever Burner.

This burner is similar to the one described above, with the exception of the manner in which the stem is attached. It is applicable in cases where the regular style might mar the appearance of the fixture, or when it is not desirable to drill through a large Bobeche.

No. 45687. Advance lever burner, polished brass.....each, $1.70
per doz., 19.20

Advance Thumb Cock Burner.

The Advance burner mechanism has been substituted in place of the old method of operating this burner. There are a number of cases where this burner will be found particularly useful.

No. 45688. Advance thumb cock burner, polished brass..... each, $1.40

The Advance Stem-Style Acetylene Burner.

On turning the key, the gas is admitted to both the pilot tube and the burner proper; the movable electrode passing the fixed electrode on the pilot tube creates the spark which ignites the gas issuing from the same, which in turn lights the main burner. The continued turning of the key extinguishes the gas at the pilot tube and brings the burner proper to full flame. On turning the burner down, the main burner can be extinguished, leaving the pilot tube ignited for use as a night lamp. This is an important feature, as it is impossible to reduce the flame of the ordinary acetylene burner without rendering the burner inoperative, owing to carbonization. No short circuit will occur on turning the burner down, as the electrodes do not come in contact.

One of the best acetylene tips is used, but burners can be fitted with other tips at the regular price, when tips are sent with orders. As no portion of the mechanism is attached to the acetylene burner the latter can be readily removed for cleaning or replaced by a new one should it become broken.

Orders are filled with 4-inch stems, but stems can be furnished 2, 3, 6, 8 or 10 inches long when specified.



No. 45688.



No. 45866.

No. 45866. Style A for regular 3¼-in. shade holder.....each, $2.60
,, 45867. ,, B for 2¼-in. shade holder,..... ,, 2.60



No. 1½.



No. 3.



No. 17.



No. 10.

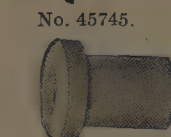


No. 50651.





No. 45815.



No. 45745.

Battery Bushing.



Burner Insulating Bushing.



Shawmut Outlet Bushing.

BURNERS, Gas Lighting (Continued).

Pendant Burners.

No. 1½. Simple burner.....each, $ .60
Polished brass, without chain pull.

No. 3. Ratchet burner..... ,, 1.20
Polished brass, without chain pull.

No. 17. Stiff pull burner..... ,, 1.00
Polished brass, with 6-, 8- or 10-in. pull.

No. 10. Stiff pull burner..... ,, 1.00
Polished brass, with 6-, 8- or 10-in. pull.
The movable electrode does not touch the fixture electrode in extinguishing the gas, thereby preventing any short circuit of battery current.

No. 50651. Ratchet gasoline burner.....each, 1.50
Polished brass, without chain pull.

No. 45815. Advance gasoline burner.....each 2.10
Polished brass, with stem.

Candle-Burner Fitting.

No. 45742. Fitting simple burners.....each, $3.10
,, 45743. ,, No. 3 burners..... ,, 3.60
,, 45744. ,, ,, 10 burners..... ,, 3.60
,, 45745. ,, Advance burners..... ,, 4.10

Automatic Candle-Burner Fitting.

We can give no rule for fitting automatic candles, and unless otherwise instructed use our own judgment as to the arrangement of parts.

No. 45746. Fitting Advance automatic burners..... $9.00

BURNLEY Paste (see P).

BUSHINGS, see following headings:

Bushings, Battery.
,, Burner, insulating.
,, Conduit.
,, Entrance.
,, Graphite.
,, Socket.
,, Trolley (see Bushing, graphite).
,, Porcelain (see Tubes).

BUSHING, Battery.

Battery Bushing.

A short porcelain tube or insulator for use with carbon cylinder batteries to insulate the zinc from the carbon.

Size, height, 1⅛ inch under head. Diameter, outside, 11/16 inch. Hole, ⅜-inch, inside. Standard package, 5,000.

No. 402. Standard battery bushing.....per 1,000. $16.00

BUSHING, Burner Insulating.

Burner Insulating Bushing.

An insulated bushing to be placed on a gas fixture which is to be equipped with an electric gas lighting burner for the purpose of insulating the burner from the fixture.

No. S-950. Burner insulating bushing.....each, $ .12

BUSHINGS, Conduit (see also Nipples, Nuts, and Couplings).

Shawmut Conduit Outlet Bushings.

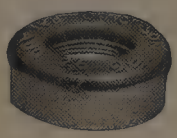
These bushings combine the best features of all bushings now on the market. The base or threaded portion is octagonal making it easy to set in place either by wrench or by hand. The outer portion is perfectly rounded, forming an even surface for the insulated conductors to ride over without abrasion. By reason of its shape it occupies a minimum of room both as regards diameter and depth. The copper plate finish is far superior to enamel or paint as it prevents chipping or oxidation.

For lock nuts for use with these bushings see " Nuts."

No. S-951. ½ in.....per 100, $5.00
,, S-952. ¾ ,, ... ,, 8.00
,, S-953. 1 ,, ... ,, 15.00
,, S-954. 1¼ in.... ,, 18.00
No. S-955. 1½ in...per 100, $20.00
,, S-956. 2 ,, .. ,, 30.00
,, S-957. 2½ ,, .. ,, 50.00
,, S-958. 3 ,, .. ,, 80.00



Erickson Box Insulator.


Erickson Outlet Insulator.


Monitor Bushing.


T. & B. Bushing.


Flexible Conduit Bushing.


No. 98.


Boss Entrance Bushing.


Graphite Bushing.

BUSHINGS, Conduit (Continued).

Erickson Box Insulators.

Erickson insulators consist of a metal member threaded to receive the end of the conduit and an insulation moulded to same.

No. A-32. Insulator for ½-in. conduit ..... per 100, $7.00
,, A-33. ,, ,, ¾ ,, ,, ... ,, 8.75

Erickson Outlet Insulators.

No. A-2. For ½-in. conduit ..... per 100, $10.00
,, A-3. ,, ¾ ,, ,, ... ,, 15.00
,, A-4. ,, 1 ,, ,, ... ,, 18.50
,, A-5. ,, 1¼ ,, ,, ... ,, 23.00
,, A-6. ,, 1½ ,, ,, ... ,, 28.00
,, A-7. ,, 2 ,, ,, ... ,, 37.00
,, A-8. ,, 2½ ,, ,, ... ,, 55.00
,, A-9. ,, 3 ,, ,, ... ,, 85.00

Monitor Bushings.

No. S-959 ..... ½-in. bushing, Std. Pkg. 1000 ..... per 100, $5.00
,, S-960 ..... ¾ ,, ,, ,, 1000 ..... ,, 8.00
,, S-961 ..... 1 ,, ,, ,, 50 ..... ,, 15.00
,, S-962 ..... 1¼ ,, ,, ,, 50 ..... ,, 18.00
,, S-963 ..... 1½ ,, ,, ,, 50 ..... ,, 20.00
,, S-964 ..... 2 ,, ,, ,, 20 ..... ,, 30.00
,, S-965 ..... 2½ ,, ,, ,, 20 ..... ,, 50.00
,, S-966 ..... 3 ,, ,, ,, 20 ..... ,, 80.00

T. & B. Bushings.

No. S-1008 ..... ½-in. bushing, Std. Pkg. 1000 ..... per 100, $5.00
,, S-1009 ..... ¾ ,, ,, ,, 100 ..... ,, 8.00
,, S-1010 ..... 1 ,, ,, ,, 100 ..... ,, 15.00
,, S-1011 ..... 1¼ ,, ,, ,, 100 ..... ,, 18.00
,, S-1012 ..... 1½ ,, ,, ,, 50 ..... ,, 20.00
,, S-1013 ..... 2 ,, ,, ,, 50 ..... ,, 30.00
,, S-1014 ..... 2½ ,, ,, ,, 25 ..... ,, 50.00
,, S-1015 ..... 3 ,, ,, ,, 25 ..... ,, 80.00

For Lock Nuts (see Nuts).

Bossert Flexible Conduit Bushing (see Couplings, flexible).

No. S-1016 ..... ½-in. bushing, Std. Pkg. 100 ..... per 100, $8.00
,, S-1017 ..... ¾ ,, ,, ,, 100 ..... ,, 12.00
,, S-1018 ..... 1 ,, ,, ,, 50 ..... ,, 16.00

Bossert Armored Conductor Bushing.

Designed for use with armored conductors made by the Sprague Electric Company.

No. 98. For No. 14BX armored conductor, std. pkg. 100, per 100, $8.00
,, 99. ,, ,, 12BX, No. 14 BXL or No. 14, 3-wire conductor, std. pkg. 100 ..... per 100, 8.00

Bushings will not be furnished without check nuts. Cannot be used with Greenfield conduit.

BUSHING, Entrance (see also Cap, pipe).

Boss Entrance Bushing.

No fishing required where wires enter pipe. Cap is detached by loosening screw. Bushing makes waterproof wires that enter a pipe, and one of the principal uses to which it can be put is in connection with a transformer where the house wires enter the conducting pipe. Can be made to meet any special condition. Valuable for use in connection with fire-alarm boxes.

			Std. Pkg.		Each.
No. S-1019	½ in.	bushing	50	3-wire or 2-wire	$ .50
,, S-1020	¾ ,,	,,	50	,, ,, ,,	.70
,, S-1021	1 ,,	,,	30	,, ,, ,,	1.00
,, S-1022	1¼ ,,	,,	30	,, ,, ,,	1.20
,, S-1023	1½ ,,	,,	30	,, ,, ,,	1.40
,, S-1024	2 ,,	,,	10	,, ,, ,,	1.70
,, S-1025	2½ ,,	,,	10	,, ,, ,,	2.40
,, S-1026	3 ,,	,,	10	,, ,, ,,	3.60

BUSHINGS, Graphite.

Graphite Trolley Wheel Bushings.

Made from pure copper and tin and packed with highest grade of graphite.

No. S-1027. Standard size, ½ x ⅞ x 1½ in. ..... each, $ .17
,, S-1028. High speed, ⅝ x ⅞ x 1½ in. ..... ,, .26



No. 9165. No. 10922.



No. 50787.



Knostrain Socket Bushing.

Knostrain Handle Bushing.

BUSHINGS, Porcelain (see Tubes).

BUSHINGS, Socket.

Socket Bushings.

No. 9165. Rubberite socket bushing (⅜-in., 28 thread, for ⅛-in. pipe). Package quantity 1,000 ..... per 100, $ .75

No. 50787. Rubberite socket bushing (for ⅜-in. pipe). Package quantity 100 ..... per 100, 1.00

No. 10509. Soft rubber socket bushing (for ⅛-in. pipe). Package quantity 1,000 ..... per 100, .90

No. 10510. Wooden socket bushing (⅛-in. pipe). Package quantity 1,000 ..... per 100, 1.20

No. 10922. Rubberite socket bushing (⅜-in., 28 thread, for ⅛-in. pipe). Package quantity 1,000 ..... per 100, 1.00

Knostrain Socket Bushing (see Grip, cord).

The Knostrain ⅜-inch socket bushing bears the weight of a suspended socket and lamp taking the strain from the connections as required by the underwriters. Made in ⅜-inch size only.

No. S-1029. Knostrain bushing ..... per 100, $6.00

,, H-1029. Knostrain handle or rosette bushing ..... ,, 5.00

BUSHINGS, Trolley (see Bushings, graphite).

BUTTONS, Ceiling (see Rosettes).

BUTTONS, Push (see Pushes).

BUTTONS, Uniform.

Employee's Buttons.

We furnish uniform buttons of every descirption, both coat and vest sizes, in gold, silver, bronze, and aluminum. Special designs with monograms, etc., made to order. Prices on application.



Uniform Buttons.

BUZZERS.

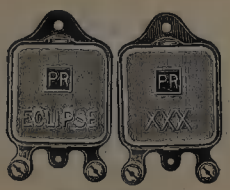
P. R. Iron Box Buzzers.

Eclipse Buzzer.

Substantial, thoroughly reliable, and low priced. Magnets wound to standard resistance, working parts Norway iron mounted on cast iron base. Pure silver contact in improved contact post, cannot get out of adjustment.

No. S-1030. Eclipse buzzer, japanned ..... each, $ .54

,, S-1031. ,, ,, nickel plated ..... ,, .64



XXX Buzzer.

Side screw adjustment, pivoted armature, flexible post rear adjustment, also improved screw contact post.

Non-turning binding-posts with slotted caps, pure silver contacts.

No. S-1032. XXX buzzer, japanned ..... each, $ .58

,, S-1033. ,, ,, nickel plated ..... ,, .68

Marlo Buzzer.

Wound to five ohms. Improved pivoted armature, flexible post rear adjustment, screw contact post side adjustment, non-turning binding-posts.

No. S-1034. Marlo buzzer, japanned ..... each, $ .64

P. R. Wood Box Buzzer.

The Rex wood box buzzer has double screw contact post for adjusting the length of hammer stroke, also double screw armature spring adjustment. All wire connections are made on face of wood base thus removing wires from back entirely.

No. S-1035. Rex buzzer ..... each, .80



No. 641.



No. 655.

Ansonia Buzzers.

No. 641 Iron Box Buzzer.

Pivoted armature and double adjustment. Method of insulating makes grounding impossible ..... each, $ .58

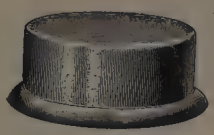
No. 655 Wood Base Buzzer.

Nickel plated cover springs on same as on bell; wood base ..... each, $ .90

No. 653 Wood Base Buzzer.

Wood base buzzer with wood cover same as the body of a wood box bell ..... each, $ .80

BUZZERS.



Nutmeg Buzzer.

Ansonia Buzzers (Continued).

No. 666 Nutmeg Buzzer.

A nickel plated watch case buzzer with double adjustment and pivoted armature. Brass case nickel plated. Cover springs tightly in place making buzzer dust and bug proof.....each, $ .60



Bee-Hive Buzzer.

Bee-Hive Buzzer.

Size 2½ x 2¾ inches. Top unscrews and all binding-posts and connections are inside. Made of wood.

No. S-1036. Bee-hive buzzer.....each, $ .80

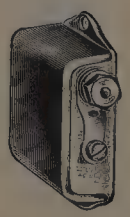


Watch Case Buzzer.

Watch-Case Buzzer.

A perfectly adjusted buzzer in a nickel plated brass box with binding-posts outside of case. The armature will not stick.

No. S-1037. Watch case buzzer.....each, $ .70

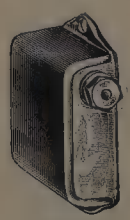


Lüngen Buzzer.

Lüngen Buzzers.

The cover and base are made of wrought metal, contacts are platinized. The tension is easily altered, contact held securely by a spring nut. Dust and insect proof.

No. 0.....	3 ohms resistance,	nickel finish	.....	each,	$	.78
,, 1.....	3 ,,	,, japan	,, ...	,,		.66
,, 2.....	3 ,,	,, ,,	,, ...	,,		.78
,, 3.....	3 ,,	,, ,,	,, ...	,,		.82
,, 4.....	3 ,,	,, ,,	,, ...	,,		.90



Eco Buzzer.

Eco Buzzers

Need no adjusting. Will operate on one to ten cells of battery. Contact points are platinized. Dust and insect proof.

No. 0.....	3 ohms resistance,	nickel finish	.....	each,	$	.66
,, 1.....	3 ,,	,, japan	,, ...	,,		.56
,, 2.....	3 ,,	,, ,,	,, ...	,,		.60
,, 3.....	3 ,,	,, ,,	,, ...	,,		.62
,, 4.....	3 ,,	,, ,,	,, ...	,,		.65



Magneto Buzzer.

Magneto Buzzer.

About the size of a push button and made to operate on telephone circuits in place of an extension bell in quiet localities.

No. 912. Wound	80 ohms for series work	.....	each,	$	2.00
,, 914. ,,	1600 ,, ,, bridging work	.....	,,		3.50

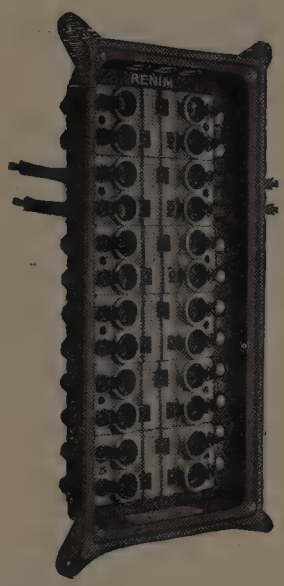


No. 32430.

Alternating Current Buzzer.

A device designed to indicate when incandescent lamps placed in obscure places are left burning. This buzzer, as it is known, consists of a small coil of wire wound on a soft steel core, which attracts a flat spring, causing it to vibrate rapidly and produce a buzzing sound. The intensity of the sound may be adjusted by means of a small set screw on the top of the cover. The porcelain base on which this device is mounted is adapted for either concealed or cleat wiring. The buzzer should be placed in series with the lamps. Its resistance is so low that the candle-power will not be affected, and as the device does not make or break the circuit, it produces no fluctuation of the lights. This buzzer is furnished with a polished brass cover having a fibre lining, and is designed for alternating current circuits only.

No. 32430. Alternating current buzzer, 3 amps., 125 volts.
Standard package 100.....each, $ .50



Cabinet No. 312 (with cut-outs).

CABINETS, Cut-Out (see Panels).

Renim Cut-Out Cabinets.

These cabinets are made of iron and provided with conduit-receiving pockets similar to the switch boxes. They are supplied with a wooden back, specially treated and rendered waterproof, wholly confined within a metal rabbet. This back is protected by a thin sheet of mild steel coated on both sides with pure lead and will not rust. Through this metal the cut-out attaching wood screws are easily driven. Owing to this construction, various combinations of cut-outs and switches may be readily installed.

A number corresponding to each circuit is cast on the inside of the cabinet as shown in cut.

Three entrance holes for the mains are drilled in either end for ⅝-inch porcelain bushings and are sealed with a flat metal plate held in place by two machine screws allowing for either one, two, or three openings as may be desired.

Suitable screws for attaching both cabinets and cut-outs are furnished with each cabinet.

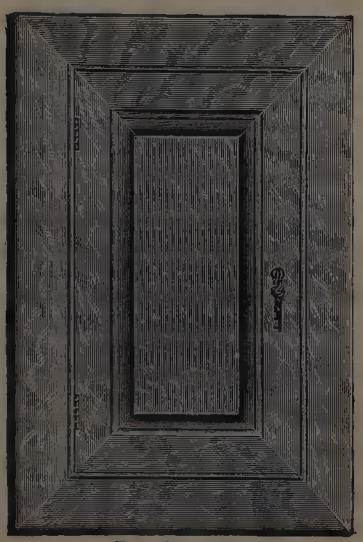
Each cabinet is provided with a temporary metal cover with a printed card attached to back for labelling circuits. This cover to be used for lining cabinet door.

For Either New or Old Work.

For ½-inch Flexible Conduit.				For ½-inch Iron Conduit.			
No.	Circuits.	Dimensions.	List.	No.	Circuits.	Dimensions.	List.
302	2	6½ x 10½	$2.40	303	2	6½ x 10½	$2.40
304	4	9½ x 10½	3.10	305	4	9½ x 10½	3.10
306	6	12½ x 10½	3.90	307	6	12½ x 10½	3.90
308	8	15½ x 10½	4.70	309	8	15½ x 10½	4.70
310	10	18½ x 10½	5.90	311	10	18½ x 10½	5.90
312	12	21½ x 10½	6.80	313	12	21½ x 10½	6.80

Price does not include Edison plug cut-outs.

Minimum depth of partition-studs required 2½ inches.



Trim No. 1310.

Renim Cabinet Trims.

These trims are strongly put together and made from thoroughly seasoned stock, well finished. The casings are mitred together and strengthened by a spline running the whole length of mitre and are rabbetted to receive the raised panel door.

The door is provided with a friction catch and is hung with brass hinges cut in as shown, the back of the casing being slightly recessed to allow for any unevenness in the plastering.

These trims are readily attached to the Renim cut-out cabinets by the four brass screws which are furnished for attaching the temporary metal cover. Trims may be readily adjusted in case the cut-out cabinet was not originally set plumb, and no holes need be made in the casing for attaching. By this method of attaching trims cannot be removed without first opening the door.

They are furnished in quartered oak and white wood, either plain or finished in shellac and varnish. Each trim is securely packed in strong pasteboard box.

Quartered Oak.

Finished.				Plain.			
No.	Circuit Trim.	Outside Dimensions.	List.	No.	Circuit Trim.	Outside Dimensions.	List.
1302	2	11 x 15	$4.30	2302	2	11 x 15	$3.80
1304	4	14 x 15	4.70	2304	4	14 x 15	4.20
1306	6	17 x 15	5.10	2306	6	17 x 15	4.60
1308	8	20 x 15	5.50	2308	8	20 x 15	5.00
1310	10	23 x 15	5.90	2310	10	23 x 15	5.40
1312	12	26 x 15	6.30	2312	12	26 x 15	5.80

CABINETS, Cut-Out.

Renim Cabinet Trims (Continued).

White Wood, Finished. No.	Circuit Trim.	Outside Dim.	List.	White Wood, Plain. No.	Circuit Trim.	Outside Dim.	List.
3302	2	11 x 15	$3.70	4302	2	11 x 15	$3.20
3304	4	14 x 15	4.10	4304	4	14 x 15	3.60
3306	6	17 x 15	4.50	4306	6	17 x 15	4.00
3308	8	20 x 15	4.90	4308	8	20 x 15	4.40
3310	10	23 x 15	5.30	4310	10	23 x 15	4.80
3312	12	26 x 15	5.70	4312	12	26 x 15	5.20

Width of casings 2¾ inches.

All the above trims are without either lock or knob, but are fitted with a " Forg " friction catch.

Trims fitted to order with Yale lock and two keys add 50 cents extra net.

Le Manquais Cut-Out Cabinets or Sectional Iron Panel Boxes.



Sectional Box.

Made of the best grade of gray cast iron of ⅛- or 3/16-inch thickness according to the size and style of box. Finished in smooth white enamel, three coats baked on.

They are built with two end pieces which alone form a box of the 4-circuit size (No. 4061) and by adding sectional pieces between these ends any one may build up a larger box to suit his needs.

Openings are for 1½-inch conduit at top for main service leads, with side openings for ½-inch conduit. Larger openings to order.

The trims are cast in one piece with door openings same size as box they fit. Doors have concealed lock and malleable iron hinges. The door also has a removable panel which may be taken out so that glass may be inserted to order.

The styles are classed by their widths. State make of cut-outs to be used, when ordering. Price includes trims.

Type A Panel Boxes.

Width 8½ inches. Depth 3 inches.

For double branch plug cut-out and panelettes.

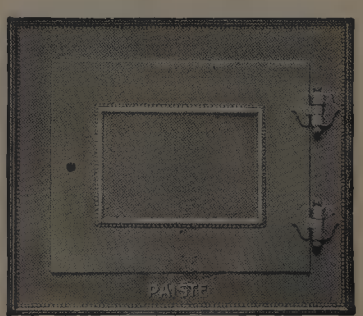
No.	Height Inside.	Capacity in Plug Cut-outs.	Capacity in Panelettes.	List Price.
4158	4½ in.	2 circuits		$4.80
4159	7¼ ,,	4 ,,		6.00
4160	10¼ ,,	6 ,,	2 circuits	7.20
4161	13¼ ,,	8 ,,	4 ,,	8.40
4162	16¼ ,,	10 ,,	6 ,,	9.60
4163	19¼ ,,	12 ,,	8 ,,	10.80
4164	22¼ ,,	14 ,,	10 ,,	12.00
4165	25¼ ,,	16 ,,	12 ,,	13.20

Type D Panel Boxes.

Width 15⅝ inches. Depth 3½ inches.

For Paiste panel cut-outs and panel cut-outs for rotary switches, Paiste panelettes, etc.

No.	Height Inside.	Capacity in Panel Cut-outs.	Capacity in Panelettes.	List Price.
4060	5¾ in.	2 circuits		$7.20
4061	9 ,,	4 ,,	2 circuits	9.60
4062	12¼ ,,	6 ,,	4 ,,	12.00
4063	15½ ,,	8 ,,	6 ,,	14.40
4064	18¾ ,,	10 ,,	8 ,,	16.80
4065	22 ,,	12 ,,	10 ,,	19.20
4066	25¼ ,,	14 ,,	12 ,,	21.60



Trim with Door.

Type C Panel Boxes.

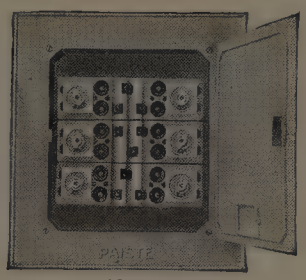
Width 15 inches. Depth 3 inches.

For Trumbull panel cut-outs.

No.	Height Inside.	Capacity	Extra for Gutters.	List Price.
4300	5½ in.	2 circuits		$7.20
4301	9 ,,	4 ,,	$2.40	9.60
4302	12 ,,	6 ,,	3.00	12.00
4303	15 ,,	8 ,,	3.60	14.40
4304	18 ,,	10 ,,	4.20	16.80
4305	21 ,,	12 ,,	4.80	19.20
4306	24 ,,	14 ,,	5.40	21.60

CABINETS, Cut-Out.

Le Manquais Cut-Out Cabinets or Sectional Iron Panel Boxes (Continued).



No. 4192.

Type BB Panel Boxes.

Width 11½ inches. Depth 3 inches.

For Hart combined switch and cut-out and Perkins porcelain covered combined switch and cut-out.

No. 4190	capacity,	2	circuits	list price,	$6.00
,, 4191	,,	4	,,	,, ,,	7.80
,, 4192	,,	6	,,	,, ,,	9.60
,, 4193	,,	8	,,	,, ,,	11.40
,, 4194	,,	10	,,	,, ,,	13.20
,, 4195	,,	12	,,	,, ,,	15.00
,, 4196	,,	14	,,	,, ,,	16.80

CABLE (see Cords, also Wires).

Cable, Automobile (see Cable, gas engine).
,, Border Light.
,, Car Curtain.
,, Clips (see Hangers).
,, Deck.
,, Elevator.
,, Gas Engine.
,, Hanger (see H).
,, Insulators (see I).
,, Iron (see Rope, wire).
,, Lead.
,, Office.
,, Sabin.
,, Steel (see Rope, wire).
,, Telephone.
,, Theatre or Stage.

CABLE, Automobile (see Cable, gas engine).

CABLE, Border Light.

Border Light Cables No. S-1038.

A heavy cable containing three or more well insulated, flexible conductors filled and wrapped to make a round cable for use in theatres for border lighting.

		Bars.							
No.	Cond.	15c.	16c.	17c.	18c.	19c.	20c.	21c.	22c.
12	3	$148.90	$150.40	$152.20	$153.80	$155.30	$156.80	$158.30	$159.80
12	4	198.50	200.50	203.00	205.00	207.00	209.00	211.00	213.00
12	5	248.10	250.60	253.80	256.30	258.80	261.30	263.80	266.30
12	6	297.80	300.80	304.50	307.50	310.50	313.50	316.50	319.50
14	3	118.90	120.00	120.80	121.50	123.00	123.80	124.90	125.60
14	4	158.50	160.00	161.00	162.00	164.00	165.00	166.50	167.50
14	5	198.10	200.00	201.30	200.50	205.00	206.30	208.10	209.40
14	6	237.80	240.00	241.50	243.00	246.00	247.50	249.80	251.30

No.	Cond.	23c.	24c.	25c.	26c.	27c.	28c.	29c.	30c.
12	3	$161.60	$163.10	$164.60	$166.10	$168.00	$169.50	$171.00	$172.50
12	4	215.50	217.50	219.50	221.50	224.00	226.00	228.00	230.00
12	5	269.40	271.90	274.40	276.90	280.00	282.50	285.00	287.50
12	6	323.30	326.30	329.30	332.30	336.00	339.00	342.00	345.00
14	3	126.80	127.50	128.60	129.80	130.50	131.30	132.80	133.50
14	4	169.00	170.00	171.50	173.00	174.00	175.00	177.00	178.00
14	5	211.30	212.50	214.40	216.30	217.50	218.80	221.30	222.50
14	6	253.50	255.00	257.30	259.50	261.00	262.50	265.50	267.00

CABLE, Car Curtain.

Car Curtain Cable.

Composed of six strands of seven wires each, about a cotton centre.

	Diameter.	Wt. per ft. in lbs. Iron.	Copper.	Price per Foot. Iron.	Tinned or Galv.	Copper.
No. 28	$\frac{1}{8}$ in.	.025	.029	$ .01$\frac{3}{4}$	$ .02$\frac{1}{4}$	$ .04$\frac{1}{2}$
,, 28½	$\frac{3}{32}$,,	.014	.016	.01$\frac{1}{2}$	.02	.03$\frac{1}{2}$
,, 29	$\frac{1}{16}$,,	.006	.007	.01$\frac{1}{4}$	.01$\frac{3}{4}$	.03



Elevator Annunciator Cable.

CABLE Clips (see Hangers).

CABLE, Deck.

Deck Cables No. S=1039.

Somewhat similar to reënforced lamp cord or "show window" cord, but with a hemp filler to give it strength. Has weatherproof finish and is suitable for deck lights on ships. Twin conductor.

Size. B. & S.	15c.	16c.	17c.	18c.	19c.	20c.	21c.	22c.
				Bars.				
10	$159.10	$161.70	$163.90	$166.50	$169.10	$171.30	$173.90	$176.10
12	124.70	126.20	128.00	129.50	131.00	132.50	133.90	135.40
14	98.80	99.90	100.60	101.40	102.90	103.60	104.70	105.50
16	83.30	84.00	84.70	85.10	85.80	86.20	87.10	87.70
18	71.40	71.80	72.20	72.50	72.90	73.30	73.60	74.00

Size. B. & S.	23c.	24c.	25c.	26c.	27c.	28c.	29c.	30c.
10	$178.70	$180.90	$183.50	$186.10	$188.30	$190.90	$193.50	$195.70
12	137.30	138.80	140.20	141.70	143.60	145.00	146.50	148.00
14	106.60	107.30	108.40	109.50	110.30	111.00	112.50	113.20
16	88.10	88.80	89.20	89.90	90.70	91.00	91.80	92.10
18	74.40	74.70	75.10	75.50	75.90	76.20	76.60	77.00

CABLE, Elevator.



Red Devil Cable.

Elevator Annunciator Cable No. S=1040.

This type of cable is designed for connecting the movable elevator car with the signal buttons upon the different floors, and is constructed with the greatest amount of strength and flexibility.

2	conductors	per ft.,	$ .16
3	,,	,,	.16
4	,,	,,	.16
5	,,	,,	.20
6	,,	,,	.24
7	,,	,,	.28
8	,,	,,	.32
9	,,	,,	.36
10	,,	,,	.40
11	,,	,,	.44
12	,,	,,	.48
13	,,	,,	.52



Packard Primary Cable.

Elevator Lighting Cables No. S=1041.

A twin wire cable reënforced to stand the strain and wear of elevator work.

Size. B. & S.	15c.	16c.	17c.	18c.	19c.	20c.	21c.	22c.
				Bars.				
14	$149.50	$151.20	$152.30	$153.40	$155.70	$156.80	$158.50	$159.60

Size. B. & S.	23c.	24c.	25c.	26c.	27c.	28c.	29c.	30c.
14	$161.30	$162.40	$164.10	$165.80	$166.90	$168.00	$170.20	$171.40

CABLE, Gas Engine.

Green Flash Cable.

Made up of 25 No. 30 copper wires equivalent to No. 16 B. & S. gauge. White core, oil proof tape and outside green varnished braid.

No. S-1042.	Green flash secondary cable, $\frac{9}{16}$ in. diam.	per 100 ft.,	$29.00
,, S-1043.	,, ,, primary ,, $\frac{3}{16}$,, ,,	,,	12.00



Packard Secondary Cable.

Red Devil Cable.

Made of 40 No. 30 copper wires with three different thicknesses of insulation.

No. S-1044.	Red Devil secondary cable, $\frac{15}{32}$ in. diam.	per 100 ft.,	$10.00
,, S-1045.	,, ,, medium ,, $\frac{9}{32}$,, ,,	,,	7.00
,, S-1046.	,, ,, primary ,, $\frac{6}{32}$,, ,,	,,	5.00

Packard Gas Engine Cable.

Every foot of this cable is tested at a voltage fully twenty times as high as that at which it is used in practice. Impossible for oil to penetrate as an oil resisting enamel film is baked on. Heat, grease, oil, and moisture proof.

No. S-1047.	Packard secondary single cable	per 100 ft.,	$25.00
,, S-1048.	,, ,, twin ,,	,,	50.00
,, S-1049.	,, primary single ,,	,,	12.00
,, S-1050.	,, ,, twin ,,	,,	24.00

CABLE, Gas Engine (Continued).

Imported Gas Engine Cable.

No. S-1051. Secondary cable.....per 100 ft., $35 00
,, S-1052. Medium secondary cable..... ,, 16.00
,, S-1053. Primary cable..... ,, 10.00

CABLE Hangers (see H).

CABLE Insulators (see I).

CABLE, Iron (see Rope, wire).

CABLE, Lead.



Lead Cable.

Lead Covered Cables.
Stranded Conductor for 600 Volts.

Size C M.	Strands.	Diameter over Copper.	Diameter over Rubber.	Wall of Lead.	Diam. over Lead.	Approximate Net Weight per 1,000 Ft.
2000000	91	1.623	62–32 and tape	$\frac{1}{8}$	72–32	11200
1750000	91	1.518	59–32 ,, ,,	$\frac{1}{8}$	69–32	10250
1500000	91	1.403	54–32 ,, ,,	$\frac{7}{64}$	63–32	8300
1250000	91	1.272	50–32 ,, ,,	$\frac{7}{64}$	59–32	7450
1000000	61	1.148	46–32 ,, ,,	$\frac{3}{32}$	54–32	6000
950000	61	1.116	45–32 ,, ,,	$\frac{3}{32}$	53–32	5750
900000	61	1.085	44–32 ,, ,,	$\frac{3}{32}$	52–32	5510
850000	61	1.058	43–32 ,, ,,	$\frac{3}{32}$	51–32	5300
800000	61	1.026	42–32 ,, ,,	$\frac{3}{32}$	50–32	5075
750000	61	.990	40–32 ,, ,,	$\frac{3}{32}$	48–32	4725
700000	61	.959	39–32 ,, ,,	$\frac{3}{32}$	47–32	4525
650000	61	.923	75–64 ,, ,,	$\frac{3}{32}$	45–32	4200
600000	61	.887	36–32 ,, ,,	$\frac{3}{32}$	44–32	4025
550000	61	.851	69–64 ,, ,,	$\frac{3}{32}$	42–32	3750
500000	61	.810	33–32 ,, ,,	$\frac{5}{64}$	40–32	3225
450000	37	.770	63–64 ,, ,,	$\frac{5}{64}$	38–32	2975
400000	37	.728	30–32 ,, ,,	$\frac{5}{64}$	37–32	2750
350000	37	.676	28–32 ,, ,	$\frac{5}{64}$	35–32	2475
300000	37	.630	53–64 ,, ,,	$\frac{5}{64}$	33–32	2225
250000	37	.574	49–64 ,, ,,	$\frac{5}{64}$	32–32	1950

Prices on application.

Lead Covered Wires.
Stranded Conductor for 600 Volts.

Size B. & S. Gauge.	Strands.	Diameter over Rubber.	Wall of Lead.	Diameter over Lead.	Net Weight per 1,000 Ft.
0000	19	22–32 and tape	$\frac{1}{16}$	27–32	1500
000	19	20–32 ,, ,,	$\frac{1}{16}$	25–32	1294
00	19	18–32 ,, ,,	$\frac{1}{16}$	23–32	1112
0	19	17–32 ,, ,,	$\frac{1}{16}$	22–32	1000
1	19	31–64 ,, ,,	$\frac{1}{16}$	21–32	878
2	19	14–32 ,, ,,	$\frac{1}{16}$	19–32	769
3	7	13–32 ,, ,,	$\frac{1}{16}$	18–32	692
4	7	12–32	$\frac{1}{16}$	16–32	584
5	7	11–32	$\frac{1}{16}$	15–32	522
6	7	10–32	$\frac{1}{16}$	14–32	465
8	7	9–32	$\frac{1}{16}$	13–32	403
10	7	8–32	$\frac{1}{16}$	12–32	352
12	7	7–32	$\frac{3}{64}$	10–32	238
14	7	6–32	$\frac{3}{64}$	9–32	197

All wires according to National Electrical Code Standard.
Prices on application.

CABLE, Lead (Continued).

Lead Covered Wires.
Solid Conductor for 600 Volts.

Size B. & S. Gauge.	Diameter over Rubber.	Wall of Lead.	Diameter over Lead.	Net Weight per 1,000 Ft.
1	29-64 and tape	1/16	20-32	851
2	13-32 ,, ,,	1/16	18-32	727
3	12-32	1/16	16-32	612
4	11-32	1/16	15-32	543
5	10-32	1/16	14-32	483
6	19-64	1/16	27-64	447
7	9-32	1/16	13-32	415
8	8-32	1/16	12-32	366
9	15-64	1/16	23-64	338
10	7-32	1/16	11-32	313
12	6-32	3/64	9-32	202
14	5-32	3/64	8-32	170
16	9-64	1/32	7-32	100

All wires according to National Electrical Code Standard.
Prices on application.

CABLE, Office.

Office Cables.
For Electric Bells, Annunciators, Telephones, Etc.

Our office cables will be found very desirable for interior work, under conditions of perfect dryness for which they are especially designed. They are usually composed of conductors of No. 18, Brown & Sharpe gauge wire, thoroughly insulated, cabled either singly or in pairs, and braided in any desired standard color. Price, per lb..... $ .55

Approximate number of feet per pound of office cables:

Size.	No. 18 Conductors. Annunciator.	No. 18 Conductors. Moisture Proof Office.	No. 20 Conductors. Annunciator.	No. 20 Conductors. Moisture Proof Office.
1 pair	60	35	75	45
2 ,,	25	15	32	20
3 ,,	19	11½	25	14
4 ,,	15	8½	20	11
5 ,,	12	7	16	9
6 ,,	10	6	14	7½
7 ,,	9	5¼	12½	7
8 ,,	8	4½	11	6
9 ,,	7	4	10	5
10 ,,	6½	3¾	9	4¾
11 ,,	6	3¼	8½	4¼
12 ,,	5½	3	8	4
13 ,,	5	2¾	7	3¾
15 ,,	4½	2½	6½	3¼
17 ,,	4	2¼	6	3
20 ,,	3½	2	5	2½
22 ,,	3	1¾	4¼	2¼
25 ,,	2¾	1½	4	2
30 ,,	2¼	1¼	3¼	1¾
40 ,,	1¾	1	2½	1¼
50 ,,	1¼	¾	1¾	1

CABLE, Sabin.

Sabin Cables.
For Aerial Use, or for Buildings where Exposed to Dampness.

Designed to meet a demand for a fairly reliable cable at low cost, and made in any desired number of single or paired conductors.

Insulation consists of two compact winds of cotton upon each wire saturated with patent compound. After cabling, a braid is applied and the cable served with two reverse wrappings of rubber tape. A heavy braid thoroughly saturated with waterproof compound serves as a further protection. Price, per lb..... $ .60

Approximate number of feet per pound of Sabin cables, No. 18 conductor:

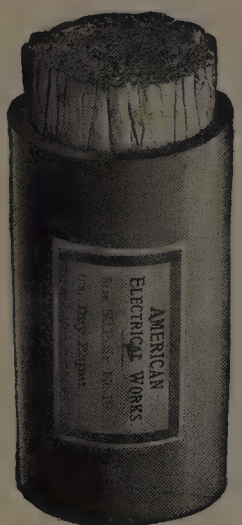
2 conductors	25	ft.	22 conductors	5¼	ft.
4 ,,	17	,,	24 ,,	5	,,
6 ,,	13	,,	26 ,,	4½	,,
8 ,,	11	,,	30 ,,	4	,,
10 ,,	9	,,	34 ,,	3½	,,
12 ,,	8	,,	38 ,,	3¼	,,
14 ,,	7½	,,	40 ,,	3	,,
16 ,,	7	,,	46 ,,	2½	,,
18 ,,	6	,,	50 ,,	2¼	,,
20 ,,	5½	,,	100 ,,	1¼	,,

CABLE, Steel (see Rope, wire).

CABLE, Telephone.

Paper Insulation, Lead Encased.
Telephone Cables.

No. 19 B. & S. gauge conductors twisted in pairs for metallic circuit use. The pairs so formed are cabled together in reversed layers and covered with a uniform sheath of lead absolutely free from flaws or other defects. This form of cable combines high insulation with low static capacity. Prices are in cents per foot.



Telephone Cable.

Size of Cable. Pair.	Underground. Capacity .08. Wall. In.	Price, per Ft.	Capacity .10. Wall. In.	Price, per Ft.	Capacity .12. Wall. In.	Price, per Ft.	Aerial. Capacity .08. Wall. In.	Price, per Ft.	Capacity .10. Wall. In.	Price, per Ft.	Capacity .12. Wall. In.	Price, per Ft.
5	5/64	9.6	5/64	9.4	1/16	9.1	5	1/16	8.4	1/16	8.3	3/64	8.2
10	3/32	13.4	3/32	12.8	5/64	12.6	10	3/32	11.9	5/64	11.5	1/16	11.4
15	7/64	15.4	3/32	14.9	3/32	14.3	15	3/32	13.6	3/32	13.4	5/64	12.8
20	1/8	19.9	7/64	18.3	3/32	17.6	20	3/32	17.8	3/32	16.4	5/64	15.9
25	1/8	22.	7/64	20.7	7/64	20.	25	7/64	19.4	3/32	18.4	3/32	18.3
30	1/8	24.3	1/8	23.2	7/64	22.4	30	7/64	21.5	7/64	20.8	3/32	20.7
40	1/8	28.3	1/8	26.7	1/8	26.	40	7/64	25.4	7/64	24.	7/64	23.9
50	1/8	35.1	1/8	33.3	1/8	32.	50	7/64	31.9	7/64	30.6	7/64	29.8
60	1/8	39.4	1/8	37.3	1/8	36.7	60	7/64	36.	7/64	34.4	7/64	34.2
75	1/8	46.2	1/8	43.3	1/8	42.3	75	7/64	42.4	7/64	40.2	7/64	39.5
90	1/8	52.	1/8	49.3	1/8	48.3	90	7/64	47.9	7/64	45.9	7/64	45.2
100	1/8	58.	1/8	55.3	1/8	54.	100	7/64	53.8	7/64	51.8	7/64	50.8
120	1/8	66.3	1/8	63.2	1/8	61.7	120	7/64	61.6	7/64	59.2	7/64	58.3
125	1/8	70.	1/8	66.	1/8	64.	125	7/64	65.4	7/64	62.	7/64	60.6
150	1/8	80.	1/8	75.6	1/8	74.7	150	7/64	75.1	7/64	71.2	7/64	71.
175	1/8	89.4	1/8	86.7	1/8	83.3							
							175	7/64	84.	7/64	82.	7/64	79.4
180	1/8	93.1	1/8	88.	1/8	86.7	180	7/64	87.8	7/64	83.4	7/64	82.7
200	1/8	1.00.	1/8	95.2	1/8	93.3	200	7/64		7/64	90.3	7/64	89.1
210	1/8	1.04.	1/8	99.4	1/8	97.3	250	7/64		7/64	1.11.	7/64	1.08.
220	1/8	1.09.	1/8	1.04.	1/8	1.02.	300	7/64		7/64		7/64	1.27.
240	1/8	1.16.	1/8	1.11.	1/8	1.10.							
250	1/8	1.25.	1/8	1.16.	1/8	1.13.							

Furnished upon reels to specified lengths.

Reels charged upon shipment and credited when returned in good condition without expense to us.

CABLE, Theatre.

Theatre or Stage Cable No. S=1054.

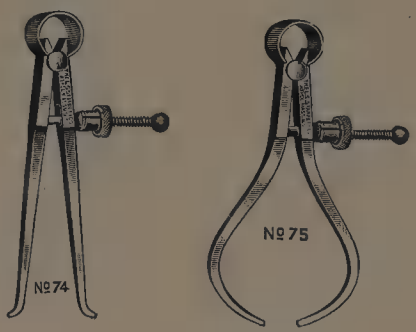
A round cable with filler and heavy wrapping similar to border light cable but containing only two conductors. Weatherproof finish.

Bars.

Size. B. & S.	15c.	16c.	17c.	18c.	19c.	20c.	21c.	22c.
2	$432.50	$445.00	$455.00	$465.00	$475.00	$485.00	$497.50	$507.50
3	367.50	375.00	382.50	392.50	400.00	407.50	417.50	425.00
4	315.50	322.00	328.80	335.30	341.80	348.30	354.80	361.50
5	270.00	275.30	280.50	285.80	290.80	296.00	301.30	306.50
6	235.00	239.00	243.50	247.80	251.80	256.00	260.30	264.50
8	163.50	166.30	168.80	171.30	174.00	176.50	179.00	181.80
10	125.00	126.80	128.30	130.00	131.80	133.30	135.00	136.50
12	99.30	100.30	101.50	102.50	103.50	104.50	105.50	106.50
14	79.30	80.00	80.50	81.00	82.00	82.50	83.30	83.80

Size. B. & S.	23c.	24c.	25c.	26c.	27c.	28c.	29c.	30c.
2	$517.50	$527.50	$537.50	$550.00	$560.00	$570.00	$580.00	$590.00
3	432.50	442.50	450.00	457.50	465.00	475.00	482.50	490.00
4	368.30	374.50	381.00	387.50	394.30	400.80	407.30	413.80
5	311.80	316.80	322.00	327.30	332.50	337.80	342.80	348.00
6	268.80	272.80	277.00	281.00	285.50	289.80	293.80	298.00
8	184.30	187.00	189.50	192.30	194.80	197.30	200.00	202.50
10	138.30	139.80	141.50	143.30	144.80	146.50	148.30	149.80
12	107.80	108.80	109.80	110.80	112.00	113.00	114.00	115.00
14	84.50	85.00	85.80	86.50	87.00	87.50	88.50	89.00

CALIPERS, **Starrett's Improved** (see also Micrometers).



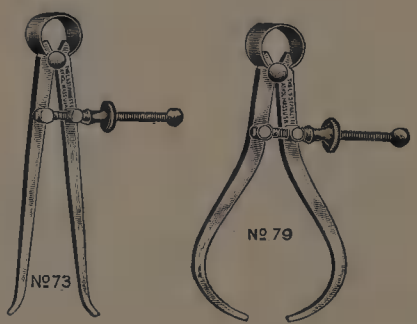
No. 74 Fay Patent Inside Calipers.

These calipers will be sent with spring nut unless otherwise ordered.

	Solid Nut.	Spring Nut.
2½ in.	$1.00	$1.15
3 ,,	1.00	1.15
4 ,,	1.10	1.25
5 ,,	1.10	1.25
6 ,,	1.35	1.50
8 ,,	1.60	1.75

No. 75 Fay Patent Outside Calipers.

	Solid Nut.	Spring Nut.
2½ in.	$1.00	$1.15
3 ,,	1.00	1.15
4 ,,	1.10	1.25
5 ,,	1.10	1.25
6 ,,	1.35	1.50
8 ,,	1.60	1.75



No. 73 Inside and No. 79 Outside Yankee Calipers.

The Yankee Calipers and Dividers are manufactured under the Fay patent, are not quite so heavy as the Fay, and cost less. They are much liked, and on account of price are preferred by many to the higher cost tools.

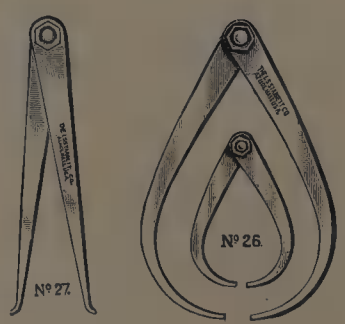
All sizes are supplied with either solid or quick adjusting nut.

No. 73 represents a new Yankee Inside Transfer Caliper with either spring or solid nut. The bow is stiff, making the caliper reliable. After calipering inside of chambered cavity by springing in the legs they may be withdrawn, and as they spring back will show the exact size calipered.

Prices, No. 79 or No. 73:

	Solid Nut.	Spring Nut.
2½ in.	$ .65	$ .80
3 ,,	.70	.85
4 ,,	.75	.90
5 ,,	.80	.95
6 ,,	.85	1.00
8 ,,	1.00	1.15

Sent with solid nut, unless otherwise ordered.



No. 27 Inside and No. 26 Outside Improved Firm Joint Calipers.

The improvement in these calipers consists in the construction of the joint, which is so made as to be drawn together by means of a screw. The main stud is squared and fitted to one leg, thus preventing the stud from turning when loosening and tightening, and insuring a smooth and uniform friction, of more or less tension to suit the user.

Prices, No. 27 or No. 26:

3 in.	$ .40	14 in.	$1.50
4 ,,	.50	16 ,,	1.75
5 ,,	.55	18 ,,	2.10
6 ,,	.65	20 ,,	2.50
8 ,,	.80	24 ,,	3.00
10 ,,	.90	30 ,,	5.00
12 ,,	1.00	36 ,,	6.00

The above sizes refer to the length of the calipers. Their capacity is about one third greater than the size given; for example, the 30-inch size will caliper 38-inch, and the 36-inch size will caliper 46-inch diameter.



No. 87.



No. 200.



No. 203.



No. 229.



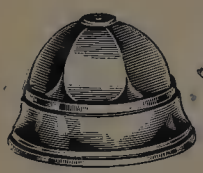
No. 340.



No. 344.



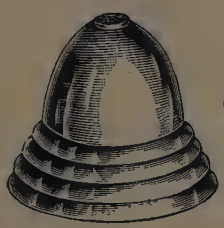
No. 352.



No. 647.



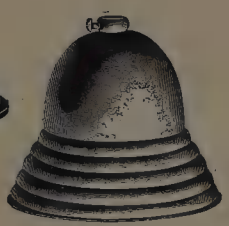
No. 08941/4.



No. 01418.



No. 01648.



No. 1594.



No. 347.



No. 348.



No. 351.



No. 01578.



No. 4K.



No. 3.

CANDLES (see Lamps, portable).

CANOPIES, Fixture.

Fixture Canopies.

Canopies as listed below are furnished either in polished brass or old brass finish. Other finishes to order at 20 per cent advance.

In ordering state size of pipe canopy is to slip.

Other styles and sizes furnished to specifications.

No.	In. Wide.	In. Deep.		
87	4½	2¾	each, $	.35
200	4½	2½	,,	.35
203	4½	2¾	,,	.35
229	4	2	,,	.35
340	3⅜	1¾	,,	.20
344	3½	2½	,,	.20
347	5	4	,,	.50
348	3	1½	,,	.20
351	4½	2¼	,,	.30
352	4½	2¼	,,	.30
647	4	2¾	,,	.40
08941/4	4	2	,,	.30
01418	4½	4	,,	.35
01578	4⅛	2¼	,,	.20
1594	3⅞	3	,,	.20
01648	4⅛	2⅛	,,	.20

CANOPY, Mica (see Bell, smoke).

Welsbach Mica Canopy

Fits practically every form of fancy globe. Folding tripod wire support. Packed flat.

	Per Doz.	Per Gr.
No. 4K. 4 in.....	$1.80	$18.00
,, 5K. 5 ,, ...	2.00	22.00
,, 6K. 6 ,, ...	2.40	26.00
,, 7K. 7 ,, ...	2.85	30.00
,, 3. Mica tripod canopy, per doz.,	$1.00	
per gross,	9.50	

CANOPY Insulators (see Joints, insulating).



Waste Can.

CANS, Waste.

Galvanized Steel Waste Cans.

For oily waste and other inflammable refuse. Galvanized after being made.

No. 1	12	in. diam.,	15	in. high	each,	$1.66
,, 2	13½	,, ,,	17½	,, ,,	,,	2.44
,, 3	15	,, ,,	24½	,, ,,	,,	4.48
,, 4	17½	,, ,,	27½	,, ,,	,,	7.36

CANT Hook (see H).

CAPS, Bonding (see Pins, channel).

CAPS (see Suspensions).

CAPS, Pipe.

The G. V. Pipe Cap

(see also Bushings, entrance).


G. V. Pipe Cap.

A galvanized cap for covering the outdoor end of the service pipe. Can be used on pipe not threaded, has brass screws, and will take any number of wires or cables.

		Std. Pkg.	Each.
No. S-1054	½ in.	50	$ .60
,, S-1055	¾ ,,	50	.70
,, S-1056	1 ,,	30	1.00
,, S-1057	1¼ ,,	30	1.20
,, S-1058	1½ ,,	30	1.40
,, S-1059	2 ,,	10	1.70
,, S-1060	2½ ,,	10	2.40
,, S-1061	3 ,,	10	3.60

CAR Mover (see Pusher)

CAR Replacer (see Replacer).

CARBON Bag (see B).

CARBON Brushes (see B).

CARBON Cutter (see C).

CARBON Cylinder (see Battery, wet).

CARBON, Granular.

Granular Carbon for Transmitters, etc.

No. S-1062. Domestic carbon	per lb.,	$2.00
,, S-1063. Foreign carbon	,,	7.00
,, S-1064. Powdered for batteries	,,	.10

CARBONS, see following headings:

Carbons, Arco.
,, Electra and Siemens.
,, National.
,, plate.

"Arco" Carbons for Enclosed Arcs.

For both alternating and direct current enclosed arc lamps. A high grade imported carbon of uniform diameter, straight, and free from cracks.

	Solid. Per 1,000.	Cored. Per 1,000.
½ x 12 in.	$35.00	$39.00
½ x 10 ,,	31.20	35.50
½ x 9½ ,,	30.50	33.50
½ x 8 ,,	26.50	28.50
½ x 7 ,,	23.75	
½ x 6 ,,	20.00	
½ x 5 ,,	16.75	
7/16 x 12 ,,	30.00	34.00
7/16 x 10 in.	$27.50	$30.00
7/16 x 9½ ,,	27.00	29.00
7/16 x 6 ,,	16.00	
7/16 x 4¾ ,,	13.00	
⅜ x 12 ,,	28.50	30.50
⅜ x 10 ,,	26.00	28.00
¼ x 9½ ,,	25.50	27.00
5/16 x 8 ,,	24.50	

Standard package 1,000.

CARBONS (Continued).

Arco Carbons for Open Arcs.

For Alternating Current Open Arc Lamps.

Cored.			*Cored.*		
½ x 7½	in.	per 1,000, $26.00	19/32 x 9½	in.	per 1,000, $35.20
½ x 9½	,,	,, 29.25	⅝ x 7½	,,	,, 31 75
19/32 x 7½	,,	,, 29.50	⅝ x 9½	,,	,, 40.00

Standard package 1,000.

For Direct Current Open Arc Lamps.

Cored.		Per 1,000.	*Solid.*		Per 1,000.
7/16 x 7½	in	$20.50	5/16 x 6	in	$13 20
7/16 x 10	,,	24.50	5/16 x 7½	,,	17.00
7/16 x 12	,,	27.00	5/16 x 9½	,,	18.75
½ x 7½	,,	22.00	⅜ x 6	,,	14.60
½ x 10	,,	27.50	⅜ x 7½	,,	18.50
½ x 12	,,	30.00	⅜ x 9½	,,	20.50
9/16 x 7½	,,	23.00	7/16 x 6	,,	15 00
9/16 x 10	,,	28.00	7/16 x 7	,,	16 25
9/16 x 12	,,	31.30	7/16 x 7½	,,	18.75
19/32 x 6½	,,	24.25	7/16 x 8½	,,	20.00
⅝ x 7	,,	25.10	7/16 x 9½	,,	21 00
⅝ x 7½	,,	26.50	7/16 x 12	,,	25.80
⅝ x 10	,,	33.80	½ x 6	,,	16.50
⅝ x 12	,,	38.00	½ x 7	,,	18.00
⅝ x 14	,,	42.00	½ x 7½	,,	20.00
11/16 x 8	,,	34.50	½ x 9½	,,	23.50
11/16 x 10	,,	40.00	½ x 12	,,	28.20
			9/16 x 7	,,	21.10
			⅝ x 7	,,	24.00

Standard package 1,000

Special Arco Carbons for Projectors and Theatre Lamps.

These carbons are of the very best quality and are for either alternating or direct current.

Cored.		Per 1.000.	*Cored.*		Per 1,000.
½ x 12	in	$35.50	9/16 x 12	in	$37.50
9/16 x 6	,,	25.00	⅝ x 6	,,	30.00
9/16 x 7½	,,	27.50	⅝ x 7½	,,	32 00
9/16 x 10	,,	33.60	⅝ x 12	,,	45.00

Standard package 1,000.

Arco Carbons for Flaming Arc Lamps.

We are prepared to supply flame carbons for all makes of flaming arc lamps, direct and alternating current, with and without metal core and for yellow or white light.

Prices upon application.

Electra Carbons for Enclosed Arcs.

(*Siemens "E" use same list.*)

Blue Label carbons for enclosed arc lamps both direct and alternating.

Guaranteed absolutely uniform in quality, diameter and straightness.



Solid.		Per 1.000.	*Solid.*		Per 1.000.
⅝ x 12	in	$50.00	7/16 x 12	in	$31.40
9/16 x 12	,,	45.00	7/16 x 10	,,	28.50
½ x 12	,,	37.90	7/16 x 9½	,,	27.75
½ x 10	,,	34.50	⅜ x 12	,,	29.50
½ x 9½	,,	32.50	⅜ x 10	,,	27.50
½ x 8	,,	28.00	⅜ x 9½	,,	27.00
½ x 6	,,	20.50	⅜ x 6	,,	15.00
½ x 5	,,	16.75			

Cored.		Per 1,000.	*Cored.*		Per 1,000.
½ x 12	in	$39 00	7/16 x 12	in	$34.00
½ x 10	,,	36.30	7/16 x 9½	,,	29.20
½ x 9½	,,	34.20	⅜ x 12	,,	31.00
½ x 8	,,	29.50	⅜ x 9½	,,	28.30

CARBONS (Continued).

Electra Carbons for Open Arcs.

(Siemens "R" use same list.)

White Label carbons for direct current open arc lamps. They have no stamp on the carbon.

Soft Cored Uppers.

In.	Per 1,000.	In.	Per 1,000.	In.	Per 1,000.	In.	Per 1,000.
5/8 x 6	$22.00	11/16 x 7 1/2	$30.00	9/16 x 10	$28.10	1/2 x 12	$29.60
7/16 x 7 1/2	20.00	11/16 x 8	33.30	5/8 x 10	32.80	9/16 x 12	30.80
1/2 x 7 1/2	22.00	13/16 x 8	37.00	11/16 x 10	38.10	5/8 x 12	36.50
9/16 x 7 1/2	23.00	7/16 x 10	24.75	13/16 x 10	43.90		
5/8 x 7 1/2	27.60	1/2 x 10	27.50	7/16 x 12	27.00		

Solid Lowers.

In.	Per 1,000.	In.	Per 1,000.	In.	Per 1,000.	In.	Per 1,000.
5/16 x 6	$13.00	5/8 x 7	$24.00	15/32 x 8	$24.00	1/2 x 10	$26.20
3/8 x 6	14.60	5/16 x 7 1/2	17.00	1/2 x 8 1/2	22.70	5/16 x 12	20.00
7/16 x 6	15.00	3/8 x 7 1/2	18.50	5/16 x 9 1/2	20.00	7/16 x 12	26.80
1/2 x 6	16.50	7/16 x 7 1/2	18.75	3/8 x 9 1/2	22.00	1/2 x 12	28.20
7/16 x 7	16.00	1/2 x 7 1/2	20.00	7/16 x 9 1/2	23.10	9/16 x 12	29.50
1/2 x 7	18.00	5/8 x 7 1/2	24.50	1/2 x 9 1/2	25.20	5/8 x 12	35.50
9/16 x 7	21.00	7/16 x 8	20.00	15/32 x 10	25.20		

Pink Label carbons for alternating open arc lamps are also eminently suitable for direct current work for stage lighting, photo-engraving, and similar purposes, where absolute steadiness of arc and quiet burning are required.

(Siemens "A" use same list.)

Cored.	Per 1,000.	*Cored.*	Per 1,000.
15 x 160 mm. (19/32 x 6 1/4 in.)	$27.60	15 x 240 mm. (19/32 x 9 1/2 in.)	$35.40
13 x 175 ,, (1/2 x 7 ,,)	25.80	16 x 240 ,, (5/8 x 9 1/2 ,,)	38.50
15 x 175 ,, (19/32 x 7 ,,)	28.80	13 x 255 ,, (1/2 x 10 ,,)	32.50
16 x 175 ,, (5/8 x 7 ,,)	30.70	15 x 255 ,, (19/32 x 10 ,,)	36.50
12 x 190 ,, (15/32 x 7 1/2 ,,)	25.80	16 x 255 ,, (5/8 x 10 ,,)	40.00
13 x 190 ,, (1/2 x 7 1/2 ,,)	26.00	13 x 305 ,, (1/2 x 12 ,,)	35.70
15 x 190 ,, (19/32 x 7 1/2 ,,)	31.40	14 x 305 ,, (9/16 x 12 ,,)	37.30
11 x 240 ,, (7/16 x 9 1/2 ,,)	27.60	16 x 305 ,, (5/8 x 12 ,,)	45.00
13 x 240 ,, (1/2 x 9 1/2 ,,)	30.25		



National Carbons.

American made for open arc lamps.

7/16 x 12 in., plain carbons	per 1,000,	$16.00
1/2 x 12 ,, ,, ,,	,,	17.00
7/16 x 12 ,, copper covered carbons	,,	16.50
1/2 x 12 ,, ,, ,, ,,	,,	18.00

Carbons in Plate Form for Battery Purposes, Etc.

Lgth.	Wdth.	Thickness.	Price.	Lgth.	Wdth.	Thickness.	Price.	Lgth.	Wdth.	Thickness.	Price.
18	18	1	$4.50	13	6	7/8	$1.10	12	6	3/16	$ .55
18	18	7/8	4.25	13	6	3/4	.95	12	6	1/8	.50
18	18	3/4	4.20	13	6	5/8	.90	12	6	1/16	.50
15	12	2	4.75	13	6	1/2	.85	9	2	3/4	.30
15	12	1 3/4	4.50	13	6	3/8	.80	8 3/4	4	5/16	.35
15	12	1 1/2	4.00	13	6	1/4	.70	8	2	5/16	.20
15	12	1 1/4	3.75	13	6	1/8	.60	8	1	1	.18
15	12	1	2.75	12	12	1	2.00	7	7	1/2	.55
15	12	7/8	2.30	12	12	7/8	1.80	7	7	7/16	.50
15	12	3/4	2.20	12	12	3/4	1.70	7	7	3/8	.45
15	12	5/8	2.00	12	12	5/8	1.60	7	7	5/16	.40
15	12	1/2	1.90	12	12	1/2	1.50	7	7	1/4	.35
15	12	3/8	1.80	12	12	7/16	1.40	7	7	3/16	.35
13	9	1 1/2	3.00	12	12	3/8	1.20	7	7	1/8	.30
13	9	1 1/4	2.75	12	12	5/16	1.15	7	7	1/16	.30
13	9	1	2.00	12	12	1/4	1.10	6 3/4	3/4	3/4	.12
13	9	7/8	1.75	12	12	3/16	1.05	6	1 3/4	5/8	.15
13	9	3/4	1.50	12	6	1	1.00	6	1 5/8	5/16	.10
13	9	5/8	1.40	12	6	7/8	.90	6	3/4	5/8	.09
13	9	1/2	1.30	12	6	3/4	.85	5 5/8	1 1/4	5/16	.06
13	9	3/8	1.20	12	6	5/8	.80	4	1 3/8	1/4	.06
13	9	1/4	1.00	12	6	1/2	.75	4	1	1/4	.05
13	9	1/8	.85	12	6	7/16	.70	4	9/16	1/4	.05
13	6	1 1/2	2.00	12	6	3/8	.60	3 3/8	1	1/4	.05
13	6	1 1/4	1.75	12	6	5/16	.58	3 3/8	1/2	1/4	.05
13	6	1	1.20	12	6	1/4	.55	3	1	1/4	.05

CAR Couplers (see Couplers).
CAR Heaters (prices on application).
CAR Pushers (see P).
CAR Replacer (see Replacers and Jacks).
CAR Straps (see S).
CARRYING Hooks (see Hook).
CAR Signs (see S).
CARTS, Lineman's (see Reels).
CASES, Gear.

Lyon Sheet Steel Gear Cases.

Made entirely from sheet steel and will not crack or break but bends if struck and may easily be hammered back into shape again.

A great saving in weight over cast cases approximately from 75 to 100 pounds less per case.

Reënforced at the ends, both inside and out, by steel plates, all brackets triply reënforced. Rivet holes punched by template to insure equal strain on all rivets. Rivets are of large size of soft iron and pressed into place by 35-ton press resulting in all holes being completely filled thereby preventing shearing of rivets. All cases guaranteed for one year.



No.	Motor.		Ratio.	List.
LC-11	Lorain	22	67–14	$25.00
LC-12	,,	22	67–16	25.00
LC-13	,,	34	63–25	25.00
LC-14	,,	34D	74–14	25.00
LC-15	,,	34D	75–13	25.00
LC-16	,,	34D	69–19	25.00
LC-17	,,	34D	67–21	25.00
LC-18	,,	34D	63–27	25.00
LC-19	,,	34D	67–25	25.00
LC-20	,,	34	75–13	25 00
LC-21	,,	28	67–14	25.00
LC-22	,,	28	67–20	25.00
LC-23	,,	27	67–17	25.00
LC-24	G. E.	52	67–14	24.00
LC-25	,,	54	67–14	24.00
LC-26	,,	55	52–21	26.00
LC-27	,,	55	54–19	26.00
LC-28	,,	55	55–18	26.00
LC-29	,,	55	56–17	26.00
LC-30	,,	57	69–16	24.00
LC-31	,,	57	63–22	24.00
LC-32	,,	58	69–15	24.00
LC-33	,,	58	67–17	24.00
LC-34	,,	58	65–19	24.00
LC-35	,,	58	64–20	24.00
LC-36	,,	58	62–22	24.00
LC-37	,,	60	67–14	24.00
LC-38	,,	67	62–22	24.00
LC-39	,,	67	69–15	24.00
LC-40	,,	70	71–15	24.00
LC-41	,,	70	69–17	24.00
LC-42	,,	73	62–27	28.00
LC-43	,,	73	56–33	28.00
LC-44	,,	74	73–16	28.00
LC-45	,,	74	67–29	28.00
LC-46	,,	80	64–22	27.00
LC-47	,,	80	67–19	27.00
LC-48	,,	80	69–17	27.00
LC-49	,,	80	71–15	27.00
LC-50	,,	800	64–17	24.00
LC-51	,,	1000	69–15	24.00

CASES, Gear.



Lyon Sheet Steel Gear Cases (Continued).

No	Motor.		Ratio.	List.
LC-52	G. E.	1000	67–17	$24.00
LC-53	,,	1000	65–19	24.00
LC-54	,,	1000	64–20	24.00
LC-55	,,	1000	62–22	24.00
LC-56	,,	1000	60–24	24.00
LC-57	,,	1200	60–17	24.00
LC-58	,,	1200	50–27	24.00
LC-59	,,	2000	54–17	24.00
LC-60	West.	3	62–18	24.00
LC-61	,,	12A	68–14	24.00
LC-62	,,	12A	68–18	26.00
LC-63	,,	12A	67–15	24.00
LC-64	,,	12A	66–16	24.00
LC-65	,,	12A	65–17	24.00
LC-66	,,	12A	64–18	24.00
LC-67	,,	12A	58–24	24.00
LC-68	,,	38	68–14	24.00
LC-69	,,	38	67–15	24.00
LC-70	,,	38	64–18	24.00
LC-71	,,	38	60–22	24.00
LC-72	,,	38	58–24	24.00
LC-73	,,	49	68–14	24.00
LC-74	,,	49	67–15	24.00
LC-75	,,	49	66–16	24.00
LC-76	,,	49	64–18	24.00
LC-77	,,	56	68–14	24.00
LC-78	,,	56	67–15	24.00
LC-79	,,	56	64–18	24.00
LC-80	,,	56	60–22	24.00
LC-81	,,	56	58–24	24.00
LC-82	,,	56	56–26	24.00
LC-83	,,	56	54–28	24.00
LC-84	,,	56	52–30	24.00
LC-85	,,	68	68–14	26.00
LC-86	,,	68	67–15	26.00
LC-87	,,	68	66–16	26.00
LC-87	,,	68	65–17	26.00
LC-88	,,	68	64–18	26.00
LC-89	,,	68	62–20	26.00
LC-90	,,	68	58–24	26.00
LC-91	,,	68C	Std.	26.00
LC-92	,,	76	60–22	27.00
LC-93	,,	76	58–24	27.00
LC-94	,,	76	54–28	27.00
LC-95	,,	85	68–16	24.00
LC-96	,,	101	69–15	26.00
LC-97	Walk.	25HP	Std.	26.50
LC-98	,,	50HP	Std.	27.00
LC-99	Bul'k	R-75	54–28	26.50
LC-100	,,	R-75	58–24	27.50
LC-101	,,	R-75	60–22	27.50
LC-102	,,	R-75	62–20	27.50
LC-103	,,	R-75	66–16	27.50
LC-104	,,	R-50	Std.	27.50

CASES, Gear (Continued).

Malleable Iron Gear Cases.

Prices on application on malleable iron gear cases for all makes of motors.

CASING (see Pipe).

CAST Scroll Brackets (see Fixtures, pole and wall).

CATCHERS and Retrievers.



Gay Catcher showing Locking Dog G.



Gay Catcher showing Spring and Drum.

Gay Trolley Catchers.

These catchers are manufactured in two sizes and have frequently been called the Trojan and the Ham, but are of the same type.

The larger sized catcher is the more commonly used. It will easily take care of thirty feet of trolley cord, the spring D being strong enough to keep same taut at all times, as when going under bridges or other low places.

The locking dog G is made preferably of hard cast iron, as in malleable iron the point soon wears blunt and fails to lock when required.

The spring K is adjustable to tension to conform to tension of trolley pole, a very important feature. This spring K is guaranteed to outlast any other part of the catcher. Diameter of large catcher, 7⅜ inches.

Sample catchers sent for trial to responsible parties upon request.

No. S-1070. Large size catcher.....net, each, $5.00
,, S-1071. Small ,, ,, (to fit Wilson back).. ,, ,, 5.00

CATCHERS and Retrievers.



Knutson No. 2 Retriever.

Knutson Trolley Retriever No. 2.

The Knutson trolley retriever is 8½ inches in diameter, 6 inches deep, and weighs 28 pounds. The parts are of malleable iron and cast steel, and heavy enough to stand the hardest usage without breaking, and are not affected by rust caused by rain and sleet. The locking mechanism is set by a straight pull on rope, aided by the upward pressure of the trolley pole, till it sets automatically. The pole can be replaced at once upon the wire and the setting of the spring completed afterward. When the pole flies up from 3 inches to 6 inches, no matter at what elevation, the mechanism is tripped and the pole pulled down 2 to 4 feet below wire. An ample drainage hole is provided as an outlet for rain, snow, and sleet carried in by the rope. Brackets are used for placing the machine and it is interchangeable.

Knutson retriever, complete.....each, $25.00



The American Catcher.

American Trolley Catcher.

For use on cars on which the service is such that a retriever is not considered necessary, the American catcher will be found efficient and durable.

It is made in five parts, of malleable iron, solid and strong. It is light and convenient for handling, and parts are interchangeable.

Weight, 14 pounds; depth, 4½ inches; width, 7 inches.

No. S-1073. American trolley catcher.....each, $5.00



Ridlon No. 2 Catcher.

Ridlon Trolley Catcher No. 2.

All parts of malleable iron, with few wearing parts. The reel spring is housed inside of the case protecting it against the entranct of rain water, which would cause it to rust and shorten its life.

Ample room for trolley rope, so that with pole down reel will still take up slack. Lower part has large opening for access to reel and to provide a drip for water which might otherwise collece and freeze.

Price includes two collars, bolts and cord.

Ridlon trolley catcher, complete.....net, each, $5.00



Bead Chain for Burner Pulls. Brake Chain. Lamp Chain.

CEILING Buttons (see Rosettes).
CEILING Hanger (see Suspensions).
CEILING Hook (see H).
CEILING Lights (see L).
CEILING Pendant (see P).
CEILING Rosettes (see R).
CELLS (see Batteries).
CELLULOID SHADES (see Shades).
CEMENT, Ruberine.

Ruberine Cement.

No. S-1075. Ruberine cement is used in connection with ruberoid cloth for cementing the lap, per gal., $1.25

CENTRE Hood (see H).
CEREAL Cooker (see Boiler, double).
CHAFING Dish (see Dish).
CHAIN, Bead.

Bead Chain (see Acorns).

No. S-1076. Bead chain for burner and socket pulls, per yd., $ .18

(Special finishes to order.)

CHAIN, Brake.

We can furnish twisted link brake chain in Norway iron or any of the well known grades ordinarily used.

No. S-1077. $\frac{7}{16}$-in. Norway twist brake chain....per lb., $ .22½
,, S-1078. Ditto, BB quality..... ,, .20½
,, S-1079. " Trident " brake chain..... ,, .17½

CHAIN, Lamp.

Oneida Arc Lamp Chain.

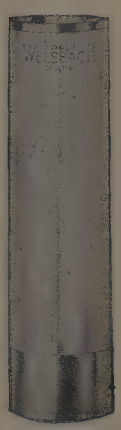
A galvanized chain to be used in place of cotton cord, mast arm rope, etc., for the support of arc lamps. It has remarkable strength, flexibility, and wearing qualities, and will outwear any other form of lamp-supporting rope or cord.

No. 1. Heavy chain.....net, per 100 ft., $1.90
,, 3. Medium ,, ... ,, ,, 1.80
,, 5. Light ,, ... ,, ,, 1.60

CHALK.

French Chalk.

Powdered French chalk for conduit work .....per lb., $ .20



Mica Chimney.

CHAMOIS Skins (see S).
CHANNEL Pins (see P).
CHAPMAN Receptacle (see R).
CHARGING Plug (see Plugs, attachment).
CHARGING Rheostats (see Rheostats).
CHASER (see Lamps, arc).
CHATTERTON'S Compound (see Compound).
CHECK Nuts (see Nuts, lock).
CHIMNEY Canopy (see Canopy, mica).
CHIMNEYS.

Welsbach Burner Chimneys.

Mica Chimneys.

Made of good quality mica, with 1½-inch metal band at base packed each in a carton.

No. 166.....6 in., 6 piece.....per doz., $1.60
,, 176.....7 ,, 6 ,, ... ,, 1.75
,, 186.....8 ,, 6 ,, ... ,, 1.85

Glass Chimneys.

F. Q. M. Brand Imported. Finest quality made.

No. 42. Glass chimneys, 8-in.....per doz., $1.85

Sub Rosa Brand.

No. 22.....8-in.....per doz., 1.00



No. 42.



No. 22.



No. 306.



No. 304.

CHIMNEYS.

Welsbach Burner Chimneys (Continued).

Air Hole Glass Ware.

F. Q. M. Brand, clear glass, style "198."

No. 306	per doz.,	$1.80
,, 306. Opal glass	,,	2.50

F. Q. M. Brand, clear glass, style "195."

No. 304	per doz.,	$2.40

F. Q. M. Brand, opal glass, style "Q."

No. 302	per doz.,	$2.80

Majestic Brand, opal glass, style "Q."

No. 302	per doz.,	$2.70



No. 302. F. Q. M.

CHISEL, Cold.

No. 424 Capen Chipping Chisel.

Made from best chisel steel, ready for use.

Size 1 in.	each,	$ .30	per doz.,	$3.00
,, $\frac{7}{8}$,,	,,	.28	,,	2.75
,, $\frac{3}{4}$,,	,,	.24	,,	2.35
,, $\frac{5}{8}$,,	,,	.20	,,	2.00
,, $\frac{1}{2}$,,	,,	.18	,,	1.75
,, $\frac{3}{8}$,,	,,	.15	,,	1.50
,, $\frac{1}{4}$,,	,,	.13	,,	1.20



No. 302. Majestic.

CHISEL, Electrician's.

"P. S. & W. Co., No. 1 Extra" Socket Framing Chisels.

These chisels are made of Jessop's or Firth's best cast steel and Norway iron with blades 8 inches in length, with oval, diamond, or bevel backs.

$\frac{1}{4}$	in.	per doz.,	$12.00	$1\frac{1}{8}$	in.	per doz.,	$18.00
$\frac{5}{16}$	,,	,,	12.00	$1\frac{1}{4}$	,,	,,	18.00
$\frac{3}{8}$	,,	,,	12.00	$1\frac{3}{8}$	,,	,,	20.00
$\frac{7}{16}$	,,	,,	12.00	$1\frac{1}{2}$	,,	,,	20.00
$\frac{1}{2}$	,,	,,	12.00	$1\frac{5}{8}$	,,	,,	22.00
$\frac{5}{8}$	,,	,,	13.00	$1\frac{3}{4}$	,,	,,	22.00
$\frac{3}{4}$	,,	,,	14.00	$1\frac{7}{8}$	,,	,,	24.00
$\frac{7}{8}$	,,	,,	15.00	2	,,	,,	24.00
1	,,	,,	16.00	$2\frac{1}{4}$	,,	,,	28.00



No. 424.

CHROMAC.

Chromac.

In one pound tins ready for use in making battery solution.

No. S-1080. Chromac	per lb.,	$ .40



Socket Framing Chisel.

CHUCKS (see Tools).

CIRCUIT Breaker (see Breakers, Insulators, Porcelain, etc.).

CIRCULAR Loom Tube (see Conduit).

CIGAR Lighter (see Lighter).

CLAMPS, see following headings:

Clamps, Cable.
,, Come-Along (see Come-Alongs).
,, Cross-arm.
,, Desk.
,, Feed Wire (see Holders, wire).
,, G. E. Insulated.
,, Ground.
,, Guy.
,, Pole.
,, Poletop (see Hood).
,, Reflector.
,, Rope.
,, Splicing.
,, Suspensions.
,, Table.
,, Telephone (see Clamps, ground).
,, Trolley (see Ears).
,, Trolley Terminal.
,, Trolley Wire Hauling.



Kearney Cable Clamp.

CLAMPS, Cable.

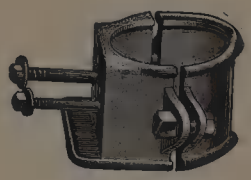
Kearney Cable Clamp.

The Kearney Cable Clamp is designed to supplant the extra joints and fastenings necessary in the ordinary methods of cable suspension at angle poles and dead ends. Two wrought-steel plates with four clamping bolts constitute the device. The two parts of the clamp are designed to fit the bare surface of the cable, and when the nuts on the four bolts joining the two parts are tightened, the clamp grips the bare cable so that the strain is transmitted through the upper plate to a globe strain or similar insulator fastened to the pole at the curve. By the use of two of these clamps, one holding the cable in either direction from an angle pole, the curved portion of the cable between the two clamps may be made short and relieved of any great amount of strain. This method of construction does away with the necessity for serving the heavy cable about an insulator at an angle pole, and then making a joint to continue the cable after it has turned the angle.

Made in but one size, suitable for cables from 000 to 2,000,000 c.m.

Length, 7 inches. Width, 4 inches. Weight, 4 pounds. Packed in cases of 12 and 25. Galvanizing, 10 cents, net, additional.

No. H-1080. Kearney cable clamp..... each, $2.50



Single Cross Arm Pole Clamp.

CLAMPS, Come-Along (see Come-Alongs).

CLAMPS, Cross Arm.

Single Cross Arm Support.

Malleable iron support for connecting wood cross arms to iron poles.

No.		List Price.
1072A.	Single support for 3- in. pole.....	$ .95
1072.	,, ,, ,, 4 ,, ,, ...	1.10
1073.	,, ,, ,, 4½ ,, ,, ...	1.35
1074.	,, ,, ,, 5 ,, ,, ...	1.55
1075.	,, ,, ,, 6 ,, ,, ...	1.85
1076.	,, ,, ,, 7 ,, ,, ...	2.15



Double Clamp.

Double Cross Arm Support.

No.		List Price.
1077A.	Double support for 3- in. pole.....	$1.10
1077.	,, ,, ,, 4 ,, ,, ...	1.35
1078.	,, ,, ,, 4½ ,, ,, ...	1.70
1079.	,, ,, ,, 5 ,, ,, ...	1.80
1080.	,, ,, ,, 6 ,, ,, ...	2.15
1081.	,, ,, ,, 7 ,, ,, ...	2.40

CLAMPS, Desk.

Desk Clamps.

No. H-1081. Desk clamp or bracket for attaching lamp to pigeon-hole of roll-top desk..... each, $ .50

No. H-1082. Desk clamp of flat, heavy brass..... ,, 1.20



Desk Clamp.

CLAMPS, Feed Wire (see Holders, wire).

CLAMPS, G. E. Insulated.

Porcelain Insulators Only.

No. 9214.....	$\frac{5}{16}$	-in. hole, porcelain only.....per 100,	$5.00
,, 9215.....	$\frac{3}{8}$	,, ,, ,, ,, ... ,,	5.00
,, 9216.....	$\frac{1}{2}$	,, ,, ,, ,, ... ,,	5.00
,, 9221.....	$\frac{5}{8}$	,, ,, ,, ,, ... ,,	6.50
,, 9222.....	$\frac{3}{4}$	,, ,, ,, ,, ... ,,	6.50
,, 9228.....	$\frac{7}{8}$	,, ,, ,, ,, ... ,,	8.50
,, 9229.....1		,, ,, ,, ,, ... ,,	8.50
,, 9230.....1$\frac{1}{8}$		,, ,, ,, ,, ... ,,	8.50
,, 9236.....1$\frac{1}{4}$		,, ,, ,, ,, ... ,,	11.00
,, 9237.....1$\frac{3}{8}$		,, ,, ,, ,, ... ,,	11.00
,, 9238.....1$\frac{1}{2}$		,, ,, ,, ,, ... ,,	11.00
,, 9243.....1$\frac{3}{4}$		,, ,, ,, ,, ... ,,	17.50
,, 9244.....2		,, ,, ,, ,, ... ,,	17.50

Standard package 100.



Porcelain with Clamp.

CLAMPS, G. E. Insulated (Continued).

Clamp Only.

No.		Per 100.
9499.	Iron clamp for Nos. 9214, 9215, 9216	$25.00
9498.	,, ,, ,, ,, 9221, 9222	27.50
9361.	,, ,, ,, ,, 9228, 9229, 9230	35.00
9360.	,, ,, ,, ,, 9236, 9237, 9238	45.00
9359.	,, ,, ,, ,, 9243, 9244	50.00
22718.	Composition clamp for Nos. 9214, 9215, 9216	90.00
22750.	,, ,, ,, ,, 9221, 9222	100.00
22751.	,, ,, ,, ,, 9228, 9229, 9230	165.00
22752.	,, ,, ,, ,, 9236, 9237, 9238	175.00
22753.	,, ,, ,, ,, 9243, 9244	185.00

Standard package 100.

CLAMPS, Ground.

Shawmut Ground Connection Clamps.



Shawmut Ground Clamp.

This clamp is made in two parts and when installed it is locked in such a manner as to give the maximum contact on the device upon which it is installed. It is simple in construction and requires only a pair of pliers to install it quickly and properly.

In addition to its use on the above work, it is largely used for grounding the metal sheaths on cable and for grounding conduit installations.

No. S-1081	½	in., for No. 4	each,	$ .40
,, S-1082	¾	,, ,, ,, 4	,,	.50
,, S-1083	1	,, ,, ,, 4	,,	.60
,, S-1084	1¼	,, ,, ,, 4	,,	.65
,, S-1085	1½	,, ,, ,, 4	,,	.70
,, S-1086	2	,, ,, ,, 4	,,	.85
,, S-1087	2½	,, ,, ,, 4	,,	1.00
,, S-1088	3	,, ,, ,, 4	,,	1.25

Standard package quantity, 100 assorted.

G. V. Ground Clamp Type A.



G. V. Ground Clamp.

No iron enters into the construction of this ground clamp.

	Std. Pkg.	Each.
For ½-in. pipe, for No. 4 wire and smaller	100	$ .24
,, ¾ ,, ,, ,, ,, 4 ,, ,, ,,	100	.28
,, 1 ,, ,, ,, ,, 4 ,, ,, ,,	75	.34
,, 1¼ ,, ,, ,, ,, 4 ,, ,, ,,	75	.40
,, 1½ ,, ,, ,, ,, 4 ,, ,, ,,	50	.46
,, 2 ,, ,, ,, ,, 4 ,, ,, ,,	50	.52
,, 2½ ,, ,, ,, ,, 4 ,, ,, ,,	25	.58
,, 3 ,, ,, ,, ,, 4 ,, ,, ,,	25	.64

G. V. Telephone Ground Clamp Type T.



G. V. Telephone Clamp.

Especially designed for grounding telephone and telegraph wires to water and gas pipes, etc.

	Std. Pkg.	Each.
For ½-in. pipe	100	$ .18
,, ¾ ,, ,,	100	.21
,, 1 ,, ,,	75	.25
,, 1¼ ,, ,,	75	.30
,, 1½ ,, ,,	50	.34
,, 2 ,, ,,	50	.39
,, 2½ ,, ,,	25	.43
,, 3 ,, ,,	25	.48



Guy Clamp.

CLAMPS, Guy.

Guy Clamps (see also Clips).

		Each.
No. H-1083.	2 bolt galvanized, 3 in., for $\frac{5}{16}$ to $\frac{3}{8}$ in. rope....	$ .22
,, H-1084.	3 ,, ,, $5\frac{1}{2}$ in., for $\frac{5}{16}$ to $\frac{1}{2}$ in. rope...	.30

CLAMPS, Pole.

Pole Clamps.

The outside diameter of pole sections are as follows: 4-inch — 4.5; $4\frac{1}{2}$-inch — 5; 5-inch — 5.563; 6-inch — 6.625; 7-inch — 7.625; 8-inch — 8.625.



Solid Band with Single Bolt.

No. 1240.	Collar to fit 4-	in. pole section	each,	$ .30
,, 1241.	,, ,, $4\frac{1}{2}$	,, ,, ,,	,,	31
,, 1242.	,, ,, 5	,, ,, ,,	,,	.32
,, 1243.	,, ,, 6	,, ,, ,,	,,	.33
,, 1244.	,, ,, 7	,, ,, ,,	,,	.35
,, 1245.	,, ,, 8	,, ,, ,,	,,	.37



No. 1246.

Solid Band with Two Bolts.

No. 1246.	Collar to fit 4-	in. pole section	each,	$ .35
,, 1247.	,, ,, $4\frac{1}{2}$	,, ,, ,,	,,	.35
,, 1248.	,, ,, 5	,, ,, ,,	,,	.36
,, 1249.	,, ,, 6	,, ,, ,,	,,	.38
,, 1250.	,, ,, 7	,, ,, ,,	,,	.41
,, 1251.	,, ,, 8	,, ,, ,,	,,	.44



No. 1252.

Split Band with Two Bolts.

No. 1252.	Collar to fit 4-	in. pole section	each,	$ .32
,, 1253.	,, ,, $4\frac{1}{2}$	,, ,, ,,	,,	.33
,, 1254.	,, ,, 5	,, ,, ,,	,,	.34
,, 1255.	,, ,, 6	,, ,, ,,	,,	.36
,, 1256.	,, ,, 7	,, ,, ,,	,,	.37
,, 1257.	,, ,, 8	,, ,, ,,	,,	.39



No. 1258.

Split Band with Three Bolts.

No. 1258.	Collar to fit 4-	in. pole section	each,	$ .37
,, 1259.	,, ,, $4\frac{1}{2}$	,, ,, ,,	,,	.37
,, 1260.	,, ,, 5	,, ,, ,,	,,	.38
,, 1261.	,, ,, 6	,, ,, ,,	,,	.40
,, 1262.	,, ,, 7	,, ,, ,,	,,	.42
,, 1263.	,, ,, 8	,, ,, ,,	,,	.43



No. 1264.

Solid Band with Insulating Spool.

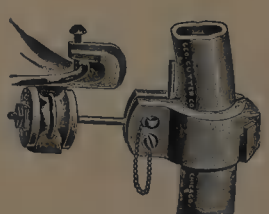
No. 1264.	Collar to fit 4-	in. pole section	each,	$ .63
,, 1265.	,, ,, $4\frac{1}{2}$	,, ,, ,,	,,	.64
,, 1266.	,, ,, 5	,, ,, ,,	,,	.65
,, 1267.	,, ,, 6	,, ,, ,,	,,	.66
,, 1268.	,, ,, 7	,, ,, ,,	,,	.68
,, 1269.	,, ,, 8	,, ,, ,,	,,	.69



No. 1270

Split Band with Insulating Spool.

No. 1270.	Collar to fit 4-	in. pole section	each,	$ .65
,, 1271.	,, ,, $4\frac{1}{2}$	,, ,, ,,	,,	.66
,, 1272.	,, ,, 5	,, ,, ,,	,,	.67
,, 1273.	,, ,, 6	,, ,, ,,	,,	.68
,, 1274.	,, ,, 7	,, ,, ,,	,,	.70
,, 1275.	,, ,, 8	,, ,, ,,	,,	.71



Cutter's Reflector Clamp.

CLAMP Poletop (see Hood).

CLAMPS, Reflector.

Cutter's Insulated Reflector Clamps.

For use with pole tops to keep the lamps from swinging. Readily unhooked so as not to interfere with trimming.

No. 1089. Cutter's insulated reflector clamp, net, per pair, $ .10





Cuttter's Rope Clamp.



No. 709.

No. 706.





No. 716. No. 718–9.



No. 723–4.



No. 1.



Table Clamp.



No. 27436.



No. 16915.

CLAMPS, Rope (see also Hanger and Insulator, rope).

Cutter's Rope Clamp.

Made of malleable iron, will readily clamp any size rope up to ⅜ inch, enabling the end of the hoisting rope to be locked at the pole. Can be used over and over again when the rope wears out.

No. S-1090. Cutter's rope clamp.....net, per doz., $1.20

Cutter's Half-Inch Clamp, same as above for ½-inch ropes.

No. S-1091. Cutter's rope clamp.....net, per doz., $1.25

CLAMPS, Splicing.

Linemen's Clamps.

No. 706. Swedish line grip clamp, polished, 11 in. long, for Nos. 4 to 10 wire, 8 to 10 sleeves, per doz., $47.00

No. 716. Swedish " Neverturn " clamp, polished, 9 in. long, 4 holes for Nos. 6 to 14 iron wire and Nos. 4 to 14 copper B. & S. gauge....per doz., 45.00

No. 709. Baby clamp, polished, 7 in. long, for 12 to 16 wire.....per doz., 31.00

No. 718. Linemen's clamp, black, 11 in. long, 4 holes for Nos. 3 to 14 iron wire and Nos. 2 to 14 copper B. & S. gauge.....per doz., 23.00

No. 719. Ditto, polished..... ,, 25.00

,, 723. Lineman's clamp, black, 11 in. long, 4 holes for Nos. 6 to 14 iron wire and Nos. 2 to 14 copper B. & S. gauge .....per doz., 23.00

No. 724. Ditto, polished..... ,, 25.00

CLAMPS, Suspension.

Messenger Suspension or Pole Clamps.
L Type.

Complete with machine bolts but no lags.

No.	Dimensions.	Size Strand.	Weight per 100 Lbs.
1	½ in. x 2 in. x 6 in.	½ in.	269
2	⅜ ,, x 2 ,, x 6 ,,	⅜ ,,	197
3	5/16 ,, x 2 ,, x 6 ,,	¼ ,,	176

Prices on application.

CLAMPS, Table.

Table Clamp
(see Pushes).

A nickel plated spring metal clamp fitted with a pearl center, desk push. Complete without cord.

No. S-1092. Table clamp.....each, $ .60

CLAMPS, Telephone (see Clamps, ground).

CLAMPS, Trolley (see Ears).

CLAMPS, Trolley Terminal.

Trolley Terminal Clamps
(see Terminal).

No. 27436. Terminal clamp for dead ending trolley wires, malleable iron, japanned..... each, $1.35

No. 27437. Terminal clamp for dead ending trolley wires, malleable iron, galvanized ....each, 1.45

Trolley Wire Hauling Clamp.

No. 16915. Trolley wire hauling clamp .....each, $1.80

CLEANERS, Bulb (see Replacers, lamp).

CLEANERS, Track (see Scrapers).

CLEATS, see following headings:

Cleats, Brass.
, Cord (see Trimmings, car).
,, Porcelain.
,, Rope.

CLEATS, Brass, for car wiring.



No. 15100.

Plain Cleats.

No. 15118. Brass cleat for No. 16 B. & S. double, rubber covered wire, bent for $\frac{3}{16}$-in. diam. wire, per 1,000, $6.50

No. 15100. Brass cleat for Nos. 4 and 6 B. & S. single braid cable, bent for $\frac{3}{8}$-in. diam. cable.....per 1,000, 8.00

No. 15103. Brass cleat for No. 2 B. & S. single braid cable, bent for $\frac{1}{2}$-in. diam. cable.....per 1,000, 10.00

No. 15108. Brass cleat for No. 00 B. & S. single braid cable, bent for $\frac{11}{16}$-in. diam. cable.....per 1,000, 15.00



No. 15102.

Corner Cleats.

No. 15102. Brass cleat for Nos. 4 and 6 B. & S. single braid cable, bent for $\frac{3}{8}$-in. diam. cable.....per 1,000, $7.50

No. 15104. Brass cleat for No. 2 B. & S. single braid cable, bent for $\frac{1}{2}$-in. diam. cable.....per 1,000, 8.00

No. 15116. Brass cleat for No. 00 B. & S. single braid cable, bent for $\frac{11}{16}$-in. diam. cable.....per 1,000, 12.50

CLEATS, Cord (see Trimmings, car).

CLEATS, Porcelain.

B. & D. Single Wire Cleats.



B. & D. Single Wire Cleat.

No.	Std. No.	Size R. C. Wire (B. & S.).	Size Hole.	Std. Pkg.	Regular Style. Pr. 1,000.	Style A* Pr. 1,000.
1	328	14 to 6	$\frac{1}{8}$ in. to $\frac{3}{8}$ in.	250	$26.68	$36.68
$1\frac{1}{2}$	329	10 ,, 2	$\frac{3}{16}$,, ,, $\frac{7}{16}$,,	250	40.00	50.00
2		2 ,, 0	$\frac{3}{8}$,, ,, $\frac{1}{2}$,,	250	48.00	60.00
$2\frac{1}{2}$	330	0 ,, 3/0	$\frac{1}{2}$,, ,, $\frac{5}{8}$,,	250	60.00	72.00
3	331	3/0 to 200000 c.m.	$\frac{9}{16}$,, ,, $\frac{3}{4}$,,	250	80.00	95.00
$3\frac{1}{2}$	$331\frac{1}{2}$	200000 c.m. to 500000 c.m.	$\frac{3}{4}$,, ,, 1 ,,	100	120.00	120.00
4	332	500000 c.m. to 1000000 c.m.	1 ,, ,, $1\frac{3}{8}$,,	100	160.00	160.00
$4\frac{1}{4}$	$332\frac{1}{4}$	800000 c.m. to 1250000 c.m.	$1\frac{3}{8}$,, ,, $1\frac{5}{8}$,,	100	320.00	320.00
$4\frac{1}{2}$	$332\frac{1}{2}$	1000000 c.m. to 2000000 c.m.	$1\frac{7}{16}$,, ,, $1\frac{15}{16}$,,	100	400.00	400.00

* Style A is 1 inch from wire to bottom of cleat.



Telephone Cleat.

Telephone Cleats.

Standard No. 333. Porcelain telephone cleat, same as used by the N. E. Telephone Co., $\frac{1}{2}$ in. wide, $\frac{1}{2}$ in. high, $1\frac{3}{16}$ in. long, $\frac{1}{4}$ in. groove. Standard package 1,000, per 1,000, $9.34



S.-H. Two-Wire Cleat.

Two-Wire Cleats.

The Stuart-Howland cleats are so designed as to hold firmly all sizes of wires from No. 16 to No. 6 inclusive.

Standard No. 334. Standard 2-wire glazed porcelain cleat, Stuart-Howland style. Standard package 1,800.....per 1,000, $26.00

No. 334A. Standard 2-wire unglazed porcelain cleat, Stuart-Howland style. Standard package 1,800.....per 1,000, 20.00

Three-Wire Cleats.



Cartwright Cleat.

Standard No. 337. Stuart-Howland 3-wire, 2-piece cleat glazed.....per 1,000, $26.00

No. 337A. Stuart-Howland 3-wire, 2-piece cleat, unglazed.....per 1,000, 20.00

No. 337B. Cartwright 3-wire, 1-piece glazed porcelain cleat.....per 1,000, 30.00



Cutter's Rope Cleat.



Fletcher's Rope Cleat.

CLEATS, Rope.

Cutter's Rope Cleat No. H=1093.

A strong, neat rope cleat, made of malleable iron, tinned, with rounded edges so as not to cut the rope....net, each, $ .15

Fletcher's Rope Cleat.

No. 907. Rope cleat, 7-in.....net, each, .15

CLEAT Rosettes (see R).

CLIMBERS.

Donnelly Climbers No. S=1093.

Made in two styles, solid plug pattern and three-rivet pattern, in sizes as follows:

15, 15½, 16, 16½, 17, 17½, 18 in.....per pair, $2.00
Extra spurs for solid pattern..... ,, .35
,, ,, ,, rivet ,, ... ,, .50



Climbers.

Stephen's Climbers No. S=1094.

Hand made, from the best material obtainable, by experienced workmen.
Made in all standard sizes from 15 to 18 in.; in three weights, light, medium, and heavy..... per pair, $5.00



Climber Strap.

Straps and Pads.

No. S-1095. Climber straps made of oak tanned leather, black. Buckles stitched on by hand. (In sets of 4)..... per set, $1.00
No. S-1096. Climber pads, can be easily adjusted to climber. Will prevent bruising leg. Made of heavy 10-oz. black leather. Size 5 x 4¼ in.....per pair, .56



Climber Pad.

CLINCH Ears (see E).

CLIPPERS, Bolt.

Porter's Bolt and Wire Clippers.

These clippers are made from the best stock with parts to standard gauges, and ample adjustment provided for keeping the cutting edges in contact. The " Easy " clippers are adjusted by shims, have less metal and not as fine an adjustment as the " New Easy."

No. 0. " New Easy " bolt clipper for $\frac{5}{16}$-in. bolts; length 18 in., weight 3 lbs..... each, $3.75
No. 1. " New Easy " bolt clipper for ⅜-in. bolts; length 24½ in., weight 5¾ lbs..... each, 5.00
No. 2. " New Easy " bolt clipper for ½-in. bolts; length 30 in.; weight 8¾ lbs..... each, 7.00
No. 3. "New Easy " bolt clipper for ⅝-in. bolts; length 36 in., weight 12½ lbs..... each, 9.00

No adjusting shims or special wrench are needed for the " New Easy " bolt clipper. The tool is complete in itself.

No. 1. " Easy " bolt clipper for ⅜-in. bolts; length 24 in.; weight 4¼ lbs..... each, $5.00
No. 2. " Easy " bolt clipper for ½-in. bolts; length 30 in.; weight 7½ lbs..... each, 7.00

Adjusting shims and a toothed wrench are furnished with each " Easy " clipper.

No. 1. " Special " bolt clipper, for electrical work, opening to ¾ in..... $5.50
No. 2. " Special " bolt clipper, for electrical work, opening to 1⅛ in..... 7.50
No. 3. " Special " bolt clipper, for electrical work, opening to 1¼ in..... 10.00

The " Special " Bolt Clippers and the " Boston " Electric Wire Cutter, are the same tools, except that the latter have insulated handles while the former do not, being used only for factory and construction work. They are arranged to open wider than the Bolt Clippers, but have no more power.



No. 0." New Easy."

(*Continued on next page.*)



No. 1 "Boston" with insulated handles and automatic hook.

CLIPPERS, Bolt.

Porter's Bolt and Wire Clippers (Continued).

No. 0. "Boston" electric wire cutter, for general purposes, with insulated handles, but without automatic hook. Capacity same as No. 0 clipper..... $5.50

No. 1. "Boston" electric wire cutter, for general purposes, with insulated handles, but without automatic hook, opening to $\frac{3}{4}$ in..... 6.50

No. 2. "Boston" electric wire cutter, for general purposes, with insulated handles, but without automatic hook, opening to $1\frac{1}{8}$ in..... 9.00

No. 3. "Boston" electric wire cutter, for general purposes, with insulated handles, but without automatic hook, opening to $1\frac{1}{4}$ in..... 12.00

No. 1. "Boston" electric wire cutter, with insulated handles and automatic hook for fire and police departments, opening to $\frac{3}{4}$ in..... 12.00

No. 1. Storage battery cutter, for cutting off the necks of worn-out lead plates in storage batteries. Cutting edges $2\frac{1}{2}$ in. long. Handles not insulated..... 12.00

No. 2. Storage battery cutter, for same purpose as No. 1. Cutting edges same length as No. 1..... 15.00

The Storage Battery Cutters are used for cutting off the necks of the lead plates in order to remove them. They have long cutting edges, and the jaws are hand forged and finished, which accounts for their greater cost. They are made only to order.

CLIPS, Cable (see Hangers, cable).

CLIPS, Fuse (see Fuses, enclosed).

CLIPS, Pipe.

Pipe Clips or Straps No. S=1097.

Tinned iron pipe clips, $\frac{1}{4}$ to $\frac{1}{2}$ in.....per lb., $ .40
,, ,, ,, $\frac{3}{4}$,, 2 ,, ... ,, .30

Approximate number per pound:

$\frac{3}{8}$ in.....72 per lb.		$1\frac{1}{2}$ in.....14 per lb.	
$\frac{1}{2}$,, ...40	,,	2 ,, ...12	,,
$\frac{3}{4}$,, ...29	,,	$2\frac{1}{2}$,, ... 6	,,
1 ,, ...21	,,	3 ,, ... 4	,,



Pipe Clip.

CLIPS, Testing.

Frankel's Testing Clips.

The teeth grip the wire while the pin pierces the insulation and makes a positive test connection, saving all stripping of wires and subsequent taping. Saves time and labor.

No. S-1098. Frankel's testing clips.....net, per doz., $1.50



Frankel's Testing Clip.

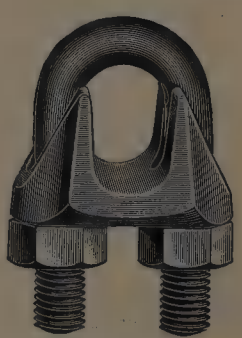
CLIPS, Wire Rope.

Cincinnati Clips No. S=1099.

$\frac{1}{4}$ in.....each,	$ .25	$\frac{3}{4}$ in.....each,	$ .40
$\frac{5}{16}$,, ... ,,	.25	$\frac{7}{8}$,, ... ,,	.45
$\frac{3}{8}$,, ... ,,	.25	1 ,, ... ,,	.50
$\frac{7}{16}$,, ... ,,	.30	$1\frac{1}{8}$,, ... ,,	.60
$\frac{1}{2}$,, ... ,,	.30	$1\frac{1}{4}$,, ... ,,	.65
$\frac{5}{8}$,, ... ,,	.35	$1\frac{1}{2}$,, ... ,,	.75

Crosby Clips No. S=1100.

$\frac{1}{4}$ in.....each,	$ .25	$1\frac{1}{8}$ in.....each,	$ .50
$\frac{5}{16}$,, ... ,,	.25	$1\frac{1}{4}$,, ... ,,	.50
$\frac{3}{8}$,, ... ,,	.25	$1\frac{3}{8}$,, ... ,,	.55
$\frac{1}{2}$,, ... ,,	.30	$1\frac{1}{2}$,, ... ,,	.60
$\frac{5}{8}$,, ... ,,	.35	$1\frac{3}{4}$,, ... ,,	3.50
$\frac{3}{4}$,, ... ,,	.40	2 ,, ... ,,	4.00
$\frac{7}{8}$,, ... ,,	.45	$2\frac{1}{4}$,, ... ,,	5.00
1 ,, ... ,,	.50	$2\frac{1}{2}$,, ... ,,	6.00



Wire Rope Clip.

CLOCKS, Electric Alarm (see Outfits).

CLOCKS, Master and Secondary.

Prices on master clocks, secondary clocks and outfits of such nature furnished on receipt of full details.



Secondary Clock.

CLOCKS, Watchman's.

Holtzer Magneto Watchman's Clocks.

A high grade watchman's register made in five styles, with finely finished cases. Operated by magneto clock stations, no batteries required.

Never failing, indelible records. Equipped with door tell-tale. Guaranteed for five years. A year's supply of dials furnished with each clock.

Style E Plain Case.

Consists of the registering clock only in case as shown, no office clock. Without magneto stations.

No. 9–152A	3-station size	each,	$45.00
,, 10–152A	4 ,,	,,	50.00
,, 11–152A	5 ,,	,,	55.00
,, 12–152A	6 ,,	,,	60.00

Style F Plain Case.

Made for one station only and in plain case. Same movement as style E.

No. 14–152A	1 station size	each, $30.00



Style E.

Style D Fancy Case.

This is the most popular style. It is intended for use as a plain watchman's register and is, therefore, equipped with a register dial only.

No. 1–152A	4-station size	each,	$60.00
,, 2–152A	6 ,,	,,	70.00
,, 3–152A	8 ,,	,,	80.00
,, 4–152A	10 ,,	,,	90.00
,, 5–152A	12 ,,	,,	100.00
,, 6–152A	15 ,,	,,	115.00
,, 7–152A	20 ,,	,,	140.00
,, 8–152A	25 ,,	,,	165.00

Add $5.00 for each additional station.

Style C, with Office Clock.

This time detector has in addition to the dial movement an eight-day office clock guaranteed reliable. Where several watchmen are employed a clock can be furnished with several registering dials, one for each watchman. Prices on application.

No. 15–152A	4-station size	each,	$75.00
,, 16–152A	6 ,,	,,	85.00
,, 17–152A	8 ,,	,,	95.00
,, 18–152A	10 ,,	,,	105.00
,, 19–152A	12 ,,	,,	115.00
,, 20–152A	15 ,,	,,	130.00
,, 21–152A	20 ,,	,,	155.00
,, 22–152A	25 ,,	,,	180.00

Add $5.00 for each additional station.



Style C.

Style A, with Office Clock.

This is a more elaborate pattern and is equipped with a regulator of the highest grade. Finely finished in quartered oak. Eight-day movement with 39-inch pendulum.

No. 23–152A	4-station size	each,	$175.00
,, 24–152A	6 ,,	,,	185.00
,, 25–152A	8 ,,	,,	195.00
,, 26–152A	10 ,,	,,	205.00
,, 27–152A	12 ,,	,,	215.00
,, 28–152A	15 ,,	,,	230.00
,, 29–152A	20 ,,	,,	255.00
,, 30–152A	25 ,,	,,	280.00

Add $5.00 for each additional station.

CLOCKS, Watchman's (Continued).



Wood Box Station.



Flush Pattern Station.

Magneto Clock Stations.

These magneto stations for operating the above clocks are equal in current output to eight or more cells of cylinder battery and can be depended upon for good service. The handle is removable and may be carried by the watchman on his rounds.

Wood Box Station.

Standard H-C generator in quartered oak case, not weatherproof.

No. 32–152A. Wood case magneto station.....each, $5.00

Iron Box Station.

For outdoor use. Weatherproof, finished in aluminum and heavily lacquered. Metal flap slides over crank opening when not in use.

No. 31–152A. Iron box magneto station.....each, $8.00

Flush Pattern Station.

Same equipment as the other stations but in a flush iron box, finished in aluminum and heavily lacquered.

No. 39–152A. Flush magneto station.....each, $8.00

CLOTH, see following headings:

Cloth, Emery.
,, Empire.
,, Micanite (see Micanite).
,, Motor.

CLOTH, Emery, etc.

Emery and Crocus Cloth.

No. S-1100.	Crocus cloth.....per doz. sheets,		$ .70
,, S-1101.	Emery ,, fine.....	,, ,,	.70
,, S-1102.	,, ,, medium.....	,, ,,	.70
,, S-1103.	,, ,, coarse.....	,, ,,	.70

CLOTHS, Empire (see also Papers, Linotape, etc.).

Empire Cloths.

Empire cloths are specially woven and finished fabrics coated with films of oxidized linseed oil.

Furnished in rolls containing 25, 50 and 100 square yards, or any length desired.

No. 5. Linen finished muslin, treated with Empire Oxidized Linseed Oil. Thickness .005 in. Average puncture voltage 5,800...per sq. yd., $ .38

No. 7. Best linen finished muslin, treated with Empire Oxidized Linseed Oil. Thickness .007 in. Average puncture voltage 7,800...per sq. yd., .45

No. 8. Linen finished muslin, treated with Empire Oxidized Linseed Oil. Thickness .008 in. Average puncture voltage 5,000...per sq. yd., .34

No. 10. Best linen finished muslin, treated with Empire Oxidized Linseed Oil. Thickness .010 in. Average puncture voltage 7,400...per sq. yd., .47

No. 12. Best linen finished muslin, treated with Empire Oxidized Linseed Oil. The base cloth of this grade is the same as the No. 10, the extra thickness consisting of films of Empire Oxidized Linseed Oil. Thickness .012 in. Average puncture voltage 12,430 ..per sq. yd., .50

No. 15. Best linen finished muslin, treated with Empire Oxidized Linseed Oil. The base cloth of this grade is also the same as the No. 10, the extra thickness consisting of films of Empire Oxidized Linseed Oil. Thickness .015 in. Average puncture voltage 15,980 ..per sq. yd., .60

No. 16. Best canvas, treated with Empire Oxidized Linseed Oil. Thickness .016 in. Average puncture voltage 7,860.....per sq. yd., .50

No. 6. Best quality Irish linen, treated with Empire Oxidized Linseed Oil. Thickness .006 in. Average puncture voltage 8,600....per sq. yd., 1.25

CLOTHS, Micanite (see Micanite).



No. 81.

CLOTHS, Motor.

Ruberoid Motor Cloth.

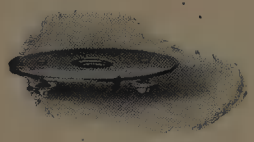
P. & B. Ruberoid motor cloth consists of a heavy, tough canvas, saturated with a waterproof compound. In rolls of 50 yards, 29 inches wide.

No. S-1104. Ruberoid cloth.....per yd., $ .50

R. R. Drill.

This heavy drilling is used for covering ends of armatures, etc., to protect the wiring from coils to commutators, etc. In rolls of approximately 40 yards.

No. S-1105. R. R. drill .....per yd., $ .16


No. 3800.

CLUSTERS, see following headings:

Clusters, Benjamin.
,, Cargo (see Reflector, cargo).
,, Dale.
,, Franklin.
,, Holophane.
,, Hubbell.
,, Street (see Fixtures, street).

CLUSTERS, Benjamin.

Benjamin Type 8 Multiple Clusters.

Diameter, 2½ inches. Edison base, fibre lined, polished brass.

If bodies with flange are required add letter F to catalog number.

For aluminum shell used instead of brass where exposed to atmosphere, add 5 cents to list price. Other special finishes on application.

Attaches directly to Bossert box by using either No. 3223 or No. 3224 flange.

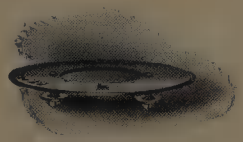
Can be used for pendant form with No. 3800 flange, which will be furnished attached, if so ordered

Paper washers are used under heads of screws, and between flange and cluster body to protect porcelain base.



No. 82.

Put up 6 in a Box.	Std. Pkg.	Net Wt. in Lbs. Body only.	Net Wt. in Lbs. With Flange.	Body only.	With No. 3800 Flange attached.
No. 81. 1-light cluster	36	12¼	16⅛	$ .60	$ .70
,, 82. 2 ,, ,,	36	15	18⅜	.90	1.00


No. 3223.

	Std. Pkg. Quantity.	Net Wt. in Lbs.	List Price.
No. 3800. Flange tapped for ⅜-in. iron pipe	36	3⅜	$ .10
,, 3223. ,, for attaching to 3-in. outlet box,	36	8½	.15
,, 3224. ,, ,, ,, ,, 4 ,, ,, ,,	36	10½	.20
,, 3850. ,, tapped for ½-in. iron pipe	36	4½	.15
,, 3223B. ,, with polished brass cover	36	10¾	.25
,, 3224B. ,, ,, ,, ,, ,,	36	15	35


No. 3850.

Benjamin Type 2 Multiple Clusters.

Diameter, 3 inches; polished brass; fibre lined.

Bushing at lowest point has knockout centre to accommodate lamp cord for drop light or pendant switch.

Put up 6 in a Box.	Std. Pkg.	Pkg. Wt. in Lbs. Body only.	Pkg. Wt. in Lbs. With Flange.	Body only.	With No. 3200 Flange attached.
No. 22. 2-light cluster	36	18¾	23¼	$1.25	$1.35
,, 23. 3 ,, ,,	36	18¾	23¼	1.50	1.60
,, 24. 4 ,, ,,	36	18¾	23¼	1.75	1.85



No. 22.

	Std. Pkg. Quantity.	Net Wt. in Lbs.	List Price.
No. 3200. Flange tapped for ⅜-in. iron pipe	36	4½	$ .10
,, 3223. ,, for attaching to 3-in. outlet box,	36	8½	.15
,, 3224. ,, ,, ,, ,, 4- ,, ,, ,,	36	10½	.20
,, 3250. ,, tapped for ½-in. iron pipe	36	12	.15
,, 3223B. ,, with polished brass cover	36	10¾	.25
,, 3224B. ,, ,, ,, ,, ,,	36	15	.35

CLUSTERS, **Benjamin** (Continued).

Benjamin Type 1 Multiple Clusters.

Diameter, 4 inches; polished brass. Knockout bushing for cord, fibre lined.



No. 15.

Put up 6 in a Box.	Std. Pkg.	Pkg. Wt. in Lbs. Body only.	Pkg. Wt. in Lbs. With Flange.	Body only.	With No. 3100 Flange attached.
No. 12. 2-light cluster	36	33	41¼	$1.50	$1.65
,, 13. 3 ,, ,,	36	33	41¼	1.75	1.90
,, 14. 4 ,, ,,	36	33	41¼	2.00	2.15
,, 15. 5 ,, ,,	36	33	41¼	2.25	2.40
,, 16. 6 ,, ,,	36	33	41¼	2.50	2.65

	Std. Pkg. Quantity.	Net Wt. in Lbs.	List Price.
No. 3100. Flange tapped for ⅜-in. iron pipe	36	8¼	$ .15
,, 3123. ,, for attaching to 3-in. outlet box	36	10¾	.20
,, 3124. ,, ,, ,, ,, 4 ,, ,, ,,	36	10¾	.20
,, 3150. ,, tapped for ½-in. iron pipe	36	19½	.20
,, 3175. ,, ,, ¾ ,, ,, ,,	36	21¾	.20
,, 3123B. ,, with polished brass cover	36	15¼	.35
,, 3124B. ,, ,, ,, ,, ,,	36	15¼	.35

Benjamin Type 2½ Series Clusters.

Diameter, 3 inches; polished brass; fibre lined.

In designing Type 2½ Cluster special care has been taken to separate as widely as possible all contacts of different potentials, porcelain partitions being used to increase the insulation where necessary. The separation of outer and inner contacts is assured by the use of the short threaded socket shell common to Benjamin Wireless Clusters, while a special porcelain base insulates the live portions and outer shell from the support used.



No. 22½.

Put up 6 in a Box.	Std. Pkg.	Pkg. Wt. in Lbs. Body only.	Pkg. Wt. in Lbs. With Flange.	Body only.	With No. 3200 Flange attached.
No. 22½. 2-light cluster	36	21	25½	$1.30	$1.40
,, 23½. 3 ,, ,,	36	21	25½	1.60	1.70

	Std. Pkg. Quantity.	Net Wt. in Lbs.	List Price.
No. 3200. Flange tapped for ⅜-in. iron pipe	36	4½	$ .10
,, 3223. ,, for attaching to 3-in. outlet box,	36	8½	.15
,, 3224. ,, ,, ,, ,, 4 ,, ,, ,,	36	10½	.20
,, 3250. ,, tapped for ½-in. iron pipe	36	12	.15
,, 3223B. ,, with polished brass cover	36	10¾	.25
,, 3224B. ,, ,, ,, ,, ,,	36	15	.35

Benjamin Type 1½ Series Cluster.

Diameter, 4 inches; polished brass; fibre lined.



No. 15½.

Put up 6 in a Box.	Std. Pkg.	Pkg. Wt. in Lbs. Body only.	Pkg. Wt. in Lbs. W. Flange.	Body only.	With No. 3100 Flange attached.
No. 12½. 2-light cluster	36	36	44¼	$1.55	$1.70
,, 13½. 3 ,, ,,	36	36	44¼	1.85	2.00
,, 14½. 4 ,, ,,	36	36	44¼	2.10	2.25
,, 15½. 5 ,, ,,	36	36	44¼	2.35	2.50

	Std. Pkg. Quantity.	Net Wt. in Lbs.	List Price.
No. 3100. Flange tapped for ⅜-in. iron pipe	36	8¼	$ .15
,, 3123. ,, for attaching to 3-in. outlet box,	36	10¾	.20
,, 3124. ,, ,, ,, ,, 4 ,, ,, ,,	36	10¾	.20
,, 3150. ,, tapped for ½-in. iron pipe	36	19½	.20
,, 3175. ,, ,, ,, ¾ ,, ,, ,,	36	21¾	.20
,, 3123B. ,, with polished brass cover	36	15¼	.35
,, 3124B. ,, ,, ,, ,, ,,	36	15¼	.35

Benjamin Type K Multiple Cluster.

Diameter, 4 inches; polished brass; fibre lined.

Type K is substantially a Type 1 Cluster with centre lamp added. The variety of its forms is almost unlimited. It can be

(*Continued on next page.*)

CLUSTERS, Benjamin.

Benjamin Type K Multiple Cluster (Continued).

furnished with "turn-down feature" — a 3-wire connection, designated by the letter "Y" — offering three degrees of illumination, namely, first, centre light only; second, side lights only; third, centre and side lights. This 3-wire connection can be ordered by affixing "Y" to catalog number and adding 25 cents to list price.



No. 16K.

Put up 6 in ■ Box,	Pkg. Wt. in Lbs. Std. Pkg.	Body only.	With Flange.	Body only.	With No. 3100 Flange attached.
No. 13K. 3-light cluster	36	33	41¼	$1.75	$1.90
,, 14K. 4 ,, ,,	36	33	41¼	2.00	2.15
,, 15K. 5 ,, ,,	36	33	41¼	2.25	2.40
,, 16K. 6 ,, ,,	36	33	41¼	2.50	2.65
,, 17K. 7 ,, ,,	36	33	41¼	2.75	2.90

	Std. Pkg. Quantity.	Net Wt. in Lbs.	List Price.
No. 3100. Flange tapped for ⅜-in. iron pipe	36	8¼	$ .15
,, 3123. ,, for attaching to 3-in. outlet box,	36	10¾	.20
,, 3124. ,, ,, ,, ,, 4 ,, ,, ,,	36	10¾	.20
,, 3150. ,, tapped for ½-in. iron pipe	36	19½	.20
,, 3175. ,, ,, ¾ ,, ,, ,,	36	21¾	.20
,, 3123B. ,, with polished brass cover	36	15¼	.35
,, 3124B. ,, ,, ,, ,, ,,	36	15¼	.35

Benjamin Type 7 Multiple Cluster.

Diameter, 4 inches.

Type 7 is a Type 1 body with an indicating single pole snap switch. This switch is furnished with a metal key which is unaffected by the heat of lamps.



No. 76.

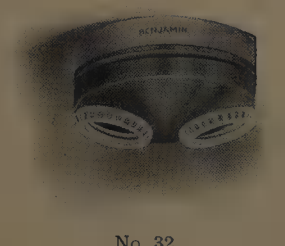
Put up 6 in a Box.	Pkg. Wt. in Lbs. Std. Pkg.	Body only.	With Flange.	Body only.	With No. 3100 Flange attached.
No. 72. 2-light cluster	36	42	50¼	$2.50	$2.65
,, 73. 3 ,, ,,	36	42	50¼	2.75	2.90
,, 74. 4 ,, ,,	36	42	50¼	3.00	3.15
,, 75. 5 ,, ,,	36	42	50¼	3.25	3.40
,, 76. 6 ,, ,,	36	42	50¼	3.50	3.65

	Std. Pkg. Quantity.	Net Wt.	List Price.
No. 3100. Flange tapped for ⅜-in. iron pipe	36	8¼	$ .15
,, 3123. ,, for attaching to 3-in. outlet box,	36	10¾	.20
,, 3124. ,, ,, ,, ,, 4 ,, ,, ,,	36	10¾	.20
,, 3150. ,, tapped for ½-in. iron pipe	36	19½	.20
,, 3175. ,, ,, ¾ ,, ,, ,,	36	21¾	.20
,, 3123B. ,, with polished brass cover	36	15¼	.35
,, 3124B. ,, ,, ,, ,, ,,	36	15¼	.35

Benjamin Type 3 Multiple Cluster.

Diameter, 3⅜ inches; polished brass.

Type 3 is peculiarly adapted for a close grouping of individual units where used with glass balls, dome, or stalactite globes. It may be used for either in-door or out-door installations, and is 3⅜ inches in diameter. For street-lighting posts, driveway and entrance standards, porch lights, etc., it fills a long-felt want.



No. 32.

Put up 6 in a Box.	Std. Pkg. Quantity.	Net Wt. in Lbs.	List Price.
No. 32. 2-light cluster	36	21½	$1.50
,, 33. 3 ,, ,,	36	21½	1.75
,, 3200. Flange tapped for ⅜-in. iron pipe	36	4½	.10
,, 3223. ,, for attaching to 3-in. outlet box,	36	8½	.15
,, 3224. ,, ,, ,, ,, 4 ,, ,, ,,	36	10½	.20
,, 3250. ,, tapped for ½-in. iron pipe	36	12	.15
,, 3223B. ,, with polished brass cover	36	10¾	.25
,, 3224B. ,, ,, ,, ,, ,,	36	15	.35

CLUSTERS, Benjamin (Continued).

Benjamin Type 3K Multiple Cluster.

Type 3K is essentially Type 3 with larger base, and a centre socket added. It is 4⅜ inches in diameter. Its forms may be widely diversified and lend themselves to the use of either standard or special lamps together with ball, bowl, or stalactite globes, in a most advantageous manner. If desired centre socket may be omitted.



No. 37K.

No.	Put up 6 in a Box.	Std. Pkg. Quantity.	Net Wt. in Lbs.	List Price.
33K.	3-light cluster	36	40½	$2.00
34K.	4 ,, ,,	36	40½	2.25
35K.	5 ,, ,,	36	40½	2.50
36K.	6 ,, ,,	36	40½	2.75
37K.	7 ,, ,,	36	40½	3.00

No.		Std. Pkg. Quantity.	Net Wt. in Lbs.	List Price.
3100.	Flange tapped for ⅜-in. iron pipe	36	8¼	$ .15
3123.	,, for attaching to 3-in. outlet box,	36	10¾	.20
3124.	,, ,, ,, ,, 4 ,, ,, ,,	36	10¾	.20
3150.	,, tapped for ½-in. iron pipe	36	19½	.20
3175.	,, ,, ,, ¾ ,, ,, ,,	36	21¾	.20
3123B.	,, with polished brass cover	36	15¼	.35
3124B.	,, ,, ,, ,, ,,	36	15¼	.35

Benjamin Type 600 Cluster.

Type 600 is composed of a neat metal shell in which openings are fitted with porcelain lamp receptacles of special design.

The arrangement of receptacles is such that connections can easily be made. The cluster may be used for either multiple or series.

All bodies of this type require stems. Nos. 608–612 inclusive are tapped for ⅜-inch pipe. Nos. 615–620 inclusive are tapped for ½-inch pipe.

Bodies ranging from 8 to 12 lights have removable cap, thus facilitating making connections. They can also be furnished with additional centre lamp opening. In ordering the latter affix letter " K " to catalog number or code word and add 30 cents to list price.

For aluminum shell used instead of brass where exposed to atmosphere, add 25 cents to list price.



No. 608.

	Put up one in a Box.	Diam. in In.	Std. Pkg. Quantity.	Net Wt. in Lbs.	List Price.
No. 608.	8-light	6¾	6	14¼	$5.00
,, 610.	10 ,,	8¾	6	17½	5.60
,, 612.	12 ,,	8¾	6	21	6.20
,, 615.	15 ,,	11¾	6	36	8.00
,, 620.	20 ,,	11¾	6	42	10.00

Benjamin Pendant Cluster Type 2 Multiple.

Special metal reflectors used are supported between base and flange and require no holders.

Stems not exceeding 36 inches are of ⅝-inch brass tubing; longer lengths of ⅜-inch iron pipe and ¾-inch brass casing.

Standard length stem is 8 inches. Extra lengths — if of ⅝-inch brass tubing list, at 35 cents per foot; if of

(*Continued on next page.*)

CLUSTERS, Benjamin.



Type 2 with Flat Shade.

Benjamin Pendant Cluster Type 2 Multiple
(Continued).

⅜-inch iron pipe and ¼-inch brass casing, at 50 cents per foot.

For deep canopy and insulating joint add 70 cents to list price.

No.	For Flat Shades.	Std. Quantity.	Pkg. Net Wt. in Lbs.	Price.
022.	2-light without holder or reflector	12	14¼	$1.95
023.	3 ,, ,, ,, ,, ,,	12	14¼	2.20
024.	4 ,, ,, ,, ,, ,,	12	14¼	2.45
0292.	2-light with 3¼-in. holder only	12	15¾	2.25
0293.	3 ,, ,, 3¼ ,, ,, ,,	12	15¾	2.50
0294.	4 ,, ,, 3¼ ,, ,, ,,	12	15¾	2.75
022P.	2-light with 14-in. opal reflector	12	31¾	2.85
023P.	3 ,, ,, 14 ,, ,, ,,	12	31¾	3.10
024P	4 ,, ,, 14 ,, ,, ,,	12	31¾	3.35
022A.	2-light with 14-in. alum. reflector	12	20¾	3.55
023A.	3 ,, ,, 14 ,, ,, ,,	12	20¾	3.80
024A.	4 ,, ,, 14 ,, ,, ,,	12	20¾	4.05
022H.	2-light with 15-in. enam. steel refl.	12	30¾	3.75
023H.	3 ,, ,, 15 ,, ,, ,, ,,	12	30¾	4.00
024H.	4 ,, ,, 15 ,, ,, ,, ,,	12	30¾	4.25
	For Fancy Shades.			
0252.	2-light with 2¼-in. holder only	12	15¼	$2.15
0253.	3 ,, ,, 2¼ ,, ,, ,,	12	15¼	2.50
0254.	4 ,, ,, 2¼ ,, ,, ,,	12	15¼	2.85
0262.	2 ,, ,, 1⅝ ,, ,, ,,	12	15¼	2.15
0263.	3 ,, ,, 1⅝ ,, ,, ,,	12	15¼	2.50
0264.	4 ,, ,, 1⅝ ,, ,, ,,	12	15¼	2.85
022G.	2-light with opal shades	12	23¾	2.55
023G.	3 ,, ,, ,, ,,	12	28	3.10
024G.	4 ,, ,, ,, ,,	12	32¼	3.65
022V.	2-light with pagoda shades	12	26¾	3.65
023V.	3 ,, ,, ,, ,,	12	32½	4.75
024V.	4 ,, ,, ,, ,,	12	38¼	5.85
022N.	2-light with x-ray shades	12	32¼	4.15
023N.	3 ,, ,, ,, ,,	12	40¾	5.50
024N.	4 ,, ,, ,, ,,	12	49¼	6.85



Type 2 with Pagoda Shades.

Benjamin Pendant Cluster Type I Multiple.

Special metal reflectors used are supported between base and flange and require no holders.

Stems not exceeding 36 inches are of ⅝-inch brass tubing; longer lengths of ⅜-inch iron pipe and ¾-inch brass casing.

Standard length stem is 8 inches. Extra lengths, if of ⅝-inch brass tubing, list at 35 cents per foot; if of ⅜-inch iron pipe and ¾-inch brass casing, at 50 cents per foot.

For deep canopy and insulating joint add 70 cents to list price.

No.	For Flat Shades.	Std. Quantity.	Pkg. Net Wt. Lbs.	List Price.
012.	2-light without holder or reflector	12	20½	$2.25
013.	3 ,, ,, ,, ,, ,,	12	20½	2.50
014.	4 ,, ,, ,, ,, ,,	12	20½	2.75
015.	5 ,, ,, ,, ,, ,,	12	20½	3.00
016.	6 ,, ,, ,, ,, ,,	12	20½	3.25
0192.	2-light with 3¼-in. holder only	12	22	2.55
0193.	3 ,, ,, 3¼ ,, ,, ,,	12	22	2.80
0194.	4 ,, ,, 3¼ ,, ,, ,,	12	22	3.05
0195.	5 ,, ,, 3¼ ,, ,, ,,	12	22	3.30
0196.	6 ,, ,, 3¼ ,, ,, ,,	12	22	3.55

(*Continued on next page.*)



Type 1 with Opal Reflector.

CLUSTERS, Benjamin.

Benjamin Pendant Cluster Type 1 Multiple (Continued).

For Flat Shades.	Std. Pkg. Quantity.	Net Wt. Lbs.	List. Price.
No. 012P. 2-light with 14-in. opal reflector	12	38	$3.15
,, 013P. 3 ,, ,, 14 ,, ,, ,,	12	38	3.40
,, 014P. 4 ,, ,, 14 ,, ,, ,,	12	38	3.65
,, 015P. 5 ,, ,, 14 ,, ,, ,,	12	38	3.90
,, 016P. 6 ,, ,, 14 ,, ,, ,,	12	38	4.15
,, 012A. 2-light with 14-in. alum. reflector	12	27	3.85
,, 013A. 3 ,, ,, 14 ,, ,, ,,	12	27	4.10
,, 014A. 4 ,, ,, 14 ,, ,, ,,	12	27	4.35
,, 015A. 5 ,, ,, 14 ,, ,, ,,	12	27	4.60
,, 016A. 6 ,, ,, 14 ,, ,, ,,	12	27	4.85
,, 012H. 2-light with 15-in. enam. steel refl	12	37	4.05
,, 013H. 3 ,, ,, 15 ,, ,, ,, ,,	12	37	4.30
,, 014H. 4 ,, ,, 15 ,, ,, ,, ,,	12	37	4.55
,, 015H. 5 ,, ,, 15 ,, ,, ,, ,,	12	37	4.80
,, 016H. 6 ,, ,, 15 ,, ,, ,, ,,	12	37	5.05



Type 1 with Fancy Shades.

For Fancy Shades.	Std. Pkg. Quantity.	Net Wt. Lbs.	List Price.
No. 0152. 2-light with $2\frac{1}{4}$-in. holders only	12	$21\frac{1}{2}$	$2.45
,, 0153. 3 ,, ,, $2\frac{1}{4}$,, ,, ,,	12	$21\frac{1}{2}$	2.80
,, 0154. 4 ,, ,, $2\frac{1}{4}$,, ,, ,,	12	$21\frac{1}{2}$	3.15
,, 0155. 5 ,, ,, $2\frac{1}{4}$,, ,, ,,	12	$21\frac{1}{2}$	3.50
,, 0162. 2 ,, ,, $1\frac{5}{8}$,, ,, ,,	12	$21\frac{1}{2}$	2.45
,, 0163. 3 ,, ,, $1\frac{5}{8}$,, ,, ,,	12	$21\frac{1}{2}$	2.80
,, 0164. 4 ,, ,, $1\frac{5}{8}$,, ,, ,,	12	$21\frac{1}{2}$	3.15
,, 0165. 5 ,, ,, $1\frac{5}{8}$,, ,, ,,	12	$21\frac{1}{2}$	3.50
,, 0166. 6 ,, ,, $1\frac{5}{8}$,, ,, ,,	12	$21\frac{1}{2}$	3.85
,, 012G. 2-light with opal shades	12	30	2.85
,, 013G. 3 ,, ,, ,, ,,	12	$34\frac{1}{4}$	3.40
,, 014G. 4 ,, ,, ,, ,,	12	$38\frac{1}{2}$	3.95
,, 015G. 5 ,, ,, ,, ,,	12	$42\frac{3}{4}$	4.50
,, 012V. 2-light with pagoda shades	12	33	3.95
,, 013V. 3 ,, ,, ,, ,,	12	$38\frac{3}{4}$	5.05
,, 014V. 4 ,, ,, ,, ,,	12	$44\frac{1}{2}$	6.15
,, 015V. 5 ,, ,, ,, ,,	12	$50\frac{1}{4}$	7.25
,, 016V. 6 ,, ,, ,, ,,	12	56	8.35
,, 012N. 2-light with x-ray shades	12	$38\frac{1}{2}$	4.45
,, 013N. 3 ,, ,, ,, ,,	12	47	5.80
,, 014N. 4 ,, ,, ,, ,,	12	55	7.15
,, 015N. 5 ,, ,, ,, ,,	12	64	8.50

Benjamin Pendant Cluster Type 7 Multiple.

Special metal reflectors used are supported between base and flange and require no holders.

Stems not exceeding 36 inches are of $\frac{5}{8}$-inch brass tubing; longer lengths of $\frac{3}{8}$-inch iron pipe and $\frac{3}{4}$-inch brass casing.

Standard length stem is 8 inches. Extra lengths, if of $\frac{5}{8}$-inch brass tubing, list at 35 cents per foot; if of $\frac{3}{8}$-inch iron pipe and $\frac{3}{4}$-inch brass casing, at 50 cents per foot.

For deep canopy and insulating joint add 70 cents to list price.

For Flat Shades.	Std. Pkg. Quantity.	Net Wt. Lbs.	List Price.
No. 072. 2-light without holder or reflector	12	24	$3.25
,, 073. 3 ,, ,, ,, ,, ,,	12	24	3.50
,, 074. 4 ,, ,, ,, ,, ,,	12	24	3.75
,, 075. 5 ,, ,, ,, ,, ,,	12	24	4.00
,, 076. 6 ,, ,, ,, ,, ,,	12	24	4.25
,, 0792. 2-light with $3\frac{1}{4}$-in. holders only	12	$25\frac{1}{2}$	3.55
,, 0793. 3 ,, ,, $3\frac{1}{4}$,, ,, ,,	12	$25\frac{1}{2}$	3.80
,, 0794. 4 ,, ,, $3\frac{1}{4}$,, ,, ,,	12	$25\frac{1}{2}$	4.05
,, 0795. 5 ,, ,, $3\frac{1}{4}$,, ,, ,,	12	$25\frac{1}{2}$	4.30
,, 0796. 6 ,, ,, $3\frac{1}{4}$,, ,, ,,	12	$25\frac{1}{2}$	4.55
,, 072P. 2-light with 14-in. opal reflector	12	$41\frac{1}{2}$	4.15
,, 073P. 3 ,, ,, 14 ,, ,, ,,	12	$41\frac{1}{2}$	4.40
,, 074P. 4 ,, ,, 14 ,, ,, ,,	12	$41\frac{1}{2}$	4.65
,, 075P. 5 ,, ,, 14 ,, ,, ,,	12	$41\frac{1}{2}$	4.90
,, 076P. 6 ,, ,, 14 ,, ,, ,,	12	$41\frac{1}{2}$	5.15

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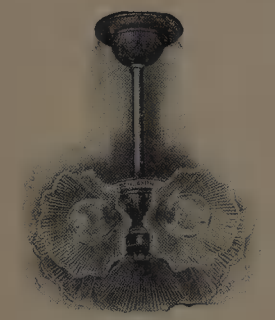
CLUSTERS, Benjamin.



Type 7 with Aluminum Reflector.

Benjamin Pendant Cluster Type 7 Multiple (Continued).

For Flat Shades.	Std. Pkg. Quantity.	Net Wt. Lbs.	List Price.
No. 072A. 2-light with 14-in. alum. reflector	12	30½	$4.85
,, 073A. 3 ,, ,, 14 ,, ,, ,,	12	30½	5.10
,, 074A. 4 ,, ,, 14 ,, ,, ,,	12	30½	5.35
,, 075A. 5 ,, ,, 14 ,, ,, ,,	12	30½	5.60
,, 076A. 6 ,, ,, 14 ,, ,, ,,	12	30½	5.85
,, 072H. 2-light with 15-in. enam. steel reflec.	12	40½	5.05
,, 073H. 3 ,, ,, 15 ,, ,, ,, ,,	12	40½	5.30
,, 074H. 4 ,, ,, 15 ,, ,, ,, ,,	12	40½	5.55
,, 075H. 5 ,, ,, 15 ,, ,, ,, ,,	12	40½	5.80
,, 076H. 6 ,, ,, 15 ,, ,, ,, ,,	12	40½	6.05



Type 7 with Pagoda Shades.

For Fancy Shades.	Std. Pkg. Quantity.	Net Wt. Lbs.	List Price.
No. 0752. 2-light with 2¼-in. holders only	12	25	$3.45
,, 0753. 3 ,, ,, 2¼ ,, ,, ,,	12	25	3.80
,, 0754. 4 ,, ,, 2¼ ,, ,, ,,	12	25	4.15
,, 0755. 5 ,, ,, 2¼ ,, ,, ,,	12	25	4.50
,, 0762. 2 ,, ,, 1⅝ ,, ,, ,,	12	25	3.45
,, 0763. 3 ,, ,, 1⅝ ,, ,, ,,	12	25	3.80
,, 0764. 4 ,, ,, 1⅝ ,, ,, ,,	12	25	4.15
,, 0765. 5 ,, ,, 1⅝ ,, ,, ,,	12	25	4.50
,, 0766. 6 ,, ,, 1⅝ ,, ,, ,,	12	25	4.85
,, 072G. 2-light with opal shades	12	33½	3.85
,, 073G. 3 ,, ,, ,, ,,	12	37¾	4.40
,, 074G. 4 ,, ,, ,, ,,	12	42	4.95
,, 075G. 5 ,, ,, ,, ,,	12	46½	5.50
,, 072V. 2-light with pagoda shades	12	36½	4.95
,, 073V. 3 ,, ,, ,, ,,	12	42¼	6.05
,, 074V. 4 ,, ,, ,, ,,	12	48	7.15
,, 075V. 5 ,, ,, ,, ,,	12	53¾	8.25
,, 076V. 6 ,, ,, ,, ,,	12	59½	9.35
,, 072N. 2-light with x-ray shades	12	42½	5.45
,, 073N. 3 ,, ,, ,, ,,	12	50	6.80
,, 074N. 4 ,, ,, ,, ,,	12	59	8.15
,, 075N. 5 ,, ,, ,, ,,	12	67	9.50



No. 6081.

Benjamin Weatherproof Cluster Type 8 Multiple.

With Suspension Fitting.

Socket shells are of copper. Flange tapped for ½-inch pipe is bolted to cluster back. Reflector between is protected by two rubber gaskets — one above, one below — thus securing water-tight joint. Reflectors are of heavy fire-enamel steel, white on both sides, insuring good reflecting surface and long wear.

Fixture includes weatherproof cluster, flange, enameled steel reflector, standard length 8-inch stem, and suspension fitting.

Type 8 body, 13-inch enameled steel reflector.

	Std. Pkg. Quantity.	Net Wt. Lbs.	List Price.
No. 6081. 1-light with suspension fitting	12	32	$2.75
,, 6082. 2 ,, ,, ,, ,,	12	33	3.05



No. 6081C.

With Connecting Block.

Polished aluminum is standard finish for all weatherproof bodies and will be furnished unless otherwise ordered.

Fixture includes weatherproof cluster, flange, enameled steel reflector, standard length 8-inch stem, and connecting block.

Type 8 body, 13-inch enameled steel reflector.

	Std. Pkg. Quantity.	Net Wt. Lbs.	List Price.
No. 6081C. 1-light with connecting block	12	37½	$3.65
,, 6082C. 2 ,, ,, ,, ,,	12	38½	3.95

CLUSTERS, **Benjamin** (Continued).

Benjamin Weatherproof Cluster Type 1, Multiple or Series.



No. 6015.

With Suspension Fitting.

Fixture includes weatherproof cluster, flange, enameled steel reflector, standard length 8-inch stem, and suspension fitting.

Type 1 body, 15-inch enameled steel reflector.

No.			Std. Pkg. Quantity.	Net Wt. Lbs.	List Price.
6012.	2-light mult.,	with suspension fitting,	12	44¾	$4.15
6013.	3 ,,	,, ,, ,, ,,	12	44¾	4.40
6014.	4 ,,	,, ,, ,, ,,	12	44¾	4.65
6015.	5 ,,	,, ,, ,, ,,	12	44¾	4.90
6016.	6 ,,	,, ,, ,, ,,	12	44¾	5.15
6012½.	2-light series,	with suspension fitting,	12	45¾	4.20
6013½.	3 ,,	,, ,, ,, ,,	12	45¾	4.50
6014½.	4 ,,	,, ,, ,, ,,	12	45¾	4.75
6015½.	5 ,,	,, ,, ,, ,,	12	45¾	5.00



No. 6015C.

With Connecting Block.

Polished aluminum is standard finish for all weatherproof bodies and will be furnished unless otherwise ordered.

Fixture includes weatherproof cluster, flange, enameled steel reflector, standard length 8-inch stem, and connecting block.

Type 1 body, 15-inch enameled steel reflector.

No.			Std. Pkg. Quantity.	Net Wt. Lbs.	List Price.
6012C.	2-light mult.,	with connecting block,	12	50¼	$5.05
6013C.	3 ,,	,, ,, ,, ,,	12	50¼	5.30
6014C.	4 ,,	,, ,, ,, ,,	12	50¼	5.55
6015C.	5 ,,	,, ,, ,, ,,	12	50¼	5.80
6016C.	6 ,,	,, ,, ,, ,,	12	50¼	6.05
6012½C.	2-light series,	with connecting block,	12	51¼	5.10
6013½C.	3 ,,	,, ,, ,, ,,	12	51¼	5.40
6014½C.	4 ,,	,, ,, ,, ,,	12	51¼	5.65
6015½C.	5 ,,	,, ,, ,, ,,	12	51¼	5.90

Benjamin Weatherproof Cluster Type 600, Multiple or Series.



No. 6615.

Type 600 body, 20-inch enameled steel reflector.

With Suspension Fitting.

No.		Diam. In.		Std. Pkg. Quantity.	Net Wt. Lbs.	List Price.
6608.	8-lt.,	6¾	20-in. enam. steel refl.	6	39¼	$8.80
6610.	10 ,,	8¾	20 ,, ,, ,, ,,	6	42¼	9.40
6612.	12 ,,	8¾	20 ,, ,, ,, ,,	6	45¾	10.00
6615.	15 ,,	11¾	24 ,, ,, ,, ,,	6	67¾	12.80
6620.	20 ,,	11¾	24 ,, ,, ,, ,,	6	73¼	14.80

Polished aluminum is standard finish. Fixture includes weatherproof cluster, casting tapped for ½-inch iron pipe, standard length 8-inch stem, and pole fitting. Series or parallel wiring may be used. Bodies ranging from 8 to 12 lights can be furnished with additional centre lamp opening, for which add 30 cents to list price. In ordering affix letter "K" to catalog number or code word.



No. 6615C.

With Connecting Block.

No.		Diam. In.		Std. Pkg. Quantity.	Net Wt. Lbs.	List Price.
6608C.	8-lt.,	6¾	20-in. enam. steel refl.	6	42	$9.70
6610C.	10 ,,	8¾	20 ,, ,, ,, ,,	6	45	10.30
6612C.	12 ,,	8¾	20 ,, ,, ,, ,,	6	48½	10.90
6615C.	15 ,,	11¾	24 ,, ,, ,, ,,	6	69½	13.70
6620C.	20 ,,	11¾	24 ,, ,, ,, ,,	6	76	15.70



No. 270.

CLUSTERS, Cargo (see Reflectors, cargo).

CLUSTERS, Dale.

All clusters are furnished regularly in polished brass finish. Other finishes to order.

No. 270 Dale Stamped Metal Solid Cluster Ball.

2-light cluster ball	each,	$	.20
3 ,, ,, ,,	,,		.25
4 ,, ,, ,,	,,		.30
5 ,, ,, ,,	,,		.35
6 ,, ,, ,,	,,		.40



No. 261.

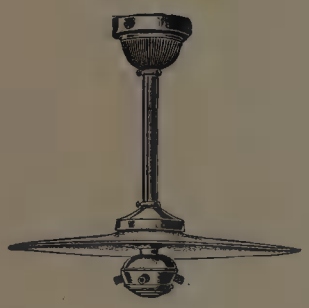
No. 261 Dale Separable Box Cluster with Improved Bottom Cap.

2-light box cluster	each,	$	.30
3 ,, ,, ,,	,,		.34
4 ,, ,, ,,	,,		.38
5 ,, ,, ,,	,,		.42
6 ,, ,, ,,	,,		.46
8 ,, ,, ,,	,,		.54

No. 261F Dale Complete Cluster Fixture

Consists of No. 261 clusters with canopy, crowfoot, shade holder, 12-inch stem of $\frac{3}{8}$-inch tubing, 18-inch flat opal shade, wired with sockets attached.

2-light with keyless sockets	each,	$2.60	key,	each,	$2.66
3 ,, ,, ,, ,,	,,	3.00	,,	,,	3.10
4 ,, ,, ,, ,,	,,	3.40	,,	,,	3.52
5 ,, ,, ,, ,,	,,	3.80	,,	,,	3.96
6 ,, ,, ,, ,,	,,	4.20	,,	,,	4.40
8 ,, ,, ,, ,,	,,	5.00	,,	,,	5.24
Extra lengths add to above	per ft.,	.24			



No. 261F.

No. 250 Dale Separable Ball Clusters.

Diameter, 3 inches.

Bottom ornament is removable, and may be replaced by a nipple, so that another light may be added. We furnish an extra nipple for this purpose when desired.

2-light separable cluster	each,	$1.25
3 ,, ,, ,,	,,	1.35
4 ,, ,, ,,	,,	1.45
5 ,, ,, ,,	,,	1.65
6 ,, ,, ,,	,,	1.85
7 ,, ,, ,,	,,	2.05
8 ,, ,, ,,	,,	2.25
9 ,, ,, ,,	,,	2.55
10 ,, ,, ,,	,,	2.85
11 ,, ,, ,,	,,	3.15
12 ,, ,, ,,	,,	3.45
14 ,, ,, ,,	,,	4.05
16 ,, ,, ,,	,,	4.65



No. 250.

No. 300 Dale Cluster Fixture.

Prices given are for stem up to 12 inches in length only. Other lengths to order. For wiring add 55 cents per light to list.

2-light cluster fixture	each,	$2.20
3 ,, ,, ,,	,,	2.30
4 ,, ,, ,,	,,	2.40
5 ,, ,, ,,	,,	2.60
6 ,, ,, ,,	,,	2.80
7 ,, ,, ,,	,,	3.00
8 ,, ,, ,,	,,	3.20
9 ,, ,, ,,	,,	3.50
10 ,, ,, ,,	,,	3.80
11 ,, ,, ,,	,,	4.10
12 ,, ,, ,,	,,	4.40
14 ,, ,, ,,	,,	5.00
16 ,, ,, ,,	,,	5.60



No. 300.

CLUSTERS, Dale (Continued).



No. 408.

No. 408 Dale Reflector Supporting Cluster

Combines shade holder and cluster. Easily wired and readily inspected.

2-light clusters	each,	$ .40
3 ,, ,,	,,	.44
4 ,, ,,	,,	.48
5 ,, ,,	,,	.52
6 ,, ,,	,,	.56



No. 196.

No. 196 Dale Car Cluster.

Prices are for cluster alone without shade or sockets. These clusters have been heretofore shipped with nipples threaded for $\frac{1}{8}$-inch pipe thread, but are now fitted with nipples threaded with $\frac{3}{8}$-inch pipe thread. Therefore they require sockets adapted for $\frac{3}{8}$-inch pipe thread instead of $\frac{1}{8}$-inch as formerly. This increase in the size of the nipples allows the rubber-covered wire to be connected directly into the lamp socket. All orders for sockets to be used on clusters must specify size of pipe thread.

2-light cluster	each,	$1.50
3 ,, ,,	,,	1.60
4 ,, ,,	,,	1.70
5 ,, ,,	,,	1.80



No. 197.

No. 197 Dale Wireless Cluster.

Furnished wired either in multiple or series; state which in ordering.

2-light multiple cluster	each,	$1.25
3 ,, ,, ,,	,,	1.50
4 ,, ,, ,,	,,	1.75
5 ,, ,, ,,	,,	2.00
6 ,, ,, ,,	,,	2.25
2-light series cluster	,,	1.30
3 ,, ,, ,,	,,	1.65
4 ,, ,, ,,	,,	1.95
5 ,, ,, ,,	,,	2.25



No. 202.

No. 202 Dale Wireless Cluster with Switch.

Furnished wired in multiple only.

2-light cluster with switch	each,	$2.25
3 ,, ,, ,, ,,	,,	2.50
4 ,, ,, ,, ,,	,,	2.75
5 ,, ,, ,, ,,	,,	3.00
6 ,, ,, ,, ,,	,,	3.25



No. 206.

No. 206 Dale Wireless Cluster with Flange and Shade Holder.

Particularly adapted for low ceiling work, takes any regular flat shade with $3\frac{1}{4}$-inch holder. Furnished either multiple or series.

2-light multiple cluster with flange	each,	$1.55
3 ,, ,, ,, ,,	,,	1.80
4 ,, ,, ,, ,,	,,	2.05
5 ,, ,, ,, ,,	,,	2.30
6 ,, ,, ,, ,,	,,	2.55
2-light series cluster with flange	,,	1.60
3 ,, ,, ,, ,,	,,	1.95
4 ,, ,, ,, ,,	,,	2.25
5 ,, ,, ,, ,,	,,	2.55



No. 214.

No. 214 Dale Wireless Cluster Flange.

Combined flange and shade holder same as used in No. 206 above ..... each, $ .35



No. 227.

No. 227 Dale Wireless Cluster with Light on Bottom.

Furnished in multiple only.

3-light multiple cluster	each,	$1.50
4 ,, ,, ,,	,,	1.75
5 ,, ,, ,,	,,	2.00
6 ,, ,, ,,	,,	2.25
7 ,, ,, ,,	,,	2.50



No. 198.



No. 303.

CLUSTERS, Dale (Continued).

No. 198 Dale Wireless Pendant Cluster.

A complete cluster fixture with 16-inch porcelain shade and 12-inch drop. Wired in multiple only.

2-light	each,		$2.90
3	,,		3.15
4	,,		3.40
5	,,		3.65
6	,,		3.90

No. 303 Dale Detachable Ceiling Cluster with Switch.

Cluster body is detachable so that the porcelain reflector may be put on or removed without interfering with the wiring or taking down the fixture.

A switch is placed in the bottom of the cluster body to turn off and on the lights, thus avoiding running wires from the ceiling outlet to the side wall.

Wired complete, excepting shade and sockets.

2-light	each,		$4.00
3	,,		4.40
4	,,		4.80
5	,,		5.20
6	,,		5.60



Franklin Cluster.

CLUSTERS, Franklin.

No. S-1106. The Franklin Cluster.

An attractive low-priced cluster having refracting and reflecting power in all directions, far neater than the old style box cluster with porcelain shades.

Quickly wired without soldering.

Furnished in four sizes including 12-inch stem, canopy, and crowfoot.

		Without Shades.	Cluster Only.
3-light complete,	$2.50	$1.80	$1.35
4 ,, ,,	3.00	2.08	1.58
5 ,, ,,	3.50	2.35	1.80
6 ,, ,,	4.00	2.62	2.03



No. 56. Holophane Arc Cluster.

CLUSTERS, Holophane.

Holophane Arc Clusters.

A substitute for arc lamps for interior lighting. Much easier to take care of and much steadier and pleasanter light.

For Standard 8 to 16 C. P. Lamps.

Standard length over all, 32 inches. Standard finish, black iron except the small holders and cluster body which are in polished brass. For $1.00 extra list price, we can furnish the latter in nickel and add a special reflector, to fit between the cluster body and the large reflector, greatly enhancing its artistic features. Extra lengths of chain and other finishes can be furnished.

Complete except lamps.

No. 54	4-light cluster	each,	$11.65
,, 55	5 ,, ,,	,,	12.40
,, 56	6 ,, ,,	,,	13.15
,, 57	7 ,, ,,	,,	14.00



No. 66. Gem Arc Cluster,

CLUSTERS, Holophane.

Holophane Arc Clusters (Continued).

For Gem High Efficiency Lamps.

Rivals the arc lamp as it gives more light on same watt consumption without the bother of trimming, etc.

This cluster utilizes the new Gem High Efficiency lamps of 40 candle-power, consuming 100 watts per lamp. The six-light cluster therefore consumes practically the same energy as a 5¼-ampere direct current enclosed arc lamp, and gives over 400 candle-power in a downward direction where the arc lamp gives but 200 candle-power, besides being much more artistic.

Standard finish, black iron, except small holders and cluster body which are in nickel. Standard length over all 34 inches. Other lengths and finishes can be furnished.

Lamps not included in price.

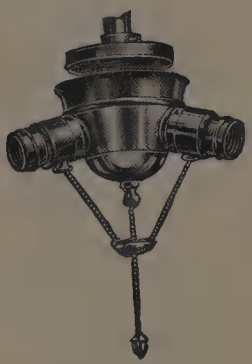
No. 64	4-light Gem arc cluster	each,	$17.90
,, 65	5 ,, ,, ,, ,,	,,	19.20
,, 66	6 ,, ,, ,, ,,	,,	20.50

For Tantalum Lamps.

This cluster is designed for the new 22 candle-power Tantalum lamps. It consumes only 264 watts. It is similar in design to our No. 56 cluster, but has special glass ware and finish. Lamps not included in price.

No. 74	4-light Tantalum cluster	each,	$13.55
,, 75	5 ,, ,, ,,	,,	14.50
,, 76	6 ,, ,, ,,	,,	15.45

CLUSTERS, Hubbell.



No. 5136.

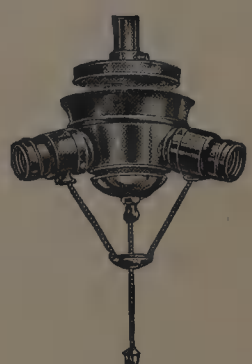
Hubbell Standard Pull Clusters.

The principal feature of this cluster is the separate control of each light by a pendant chain connecting the pull sockets to a common centre. By a straight pull all of the lights may be turned on or off. By pulling the chain to one side any one or more of the lights may be operated.

Complete with shade holder, chain, and acorn, not wired. Standard length of chain measured from bottom of cluster, 3 feet. Cluster furnished for ⅜-inch stem unless otherwise specified.

No.		Std. Pkg.	Pkg. Wt.	Price.
5135	2-light standard pull cluster, Ed. base,	10	15 lbs.	$3.25
5136	3 ,, ,, ,, ,, ,,	10	18 ,,	4.10
5137	4 ,, ,, ,, ,, ,,	10	20 ,,	5.00
5138	5 ,, ,, ,, ,, ,,	10	23 ,,	5.95
5139	6 ,, ,, ,, ,, ,,	10	25 ,,	6.85

If furnished with chain over 3 feet in length, add to list..per ft., .10
If furnished with sockets, wired, add to list.....per light, .20



No. 5347.

Hubbell Separable Pull Clusters.

This cluster is of a similar design to the regular pull cluster, except it has a separable bottom for wiring the fixture from the under side, and it is made of heavy gauge (No. 22) metal for high grade work.

Complete with shade holder, special heavy chain and acorn, not wired. Standard length of chain measured from bottom of cluster, 3 feet. Cluster furnished for ¾-inch stem unless otherwise specified.

No.		Std. Pkg.	Pkg. Wt.	Price.
5346	2-light separable pull cluster, Ed. base,	3	9 lbs.	$4.25
5347	3 ,, ,, ,, ,, ,,	5	10 ,,	5.15
5348	4 ,, ,, ,, ,, ,,	5	12 ,,	6.10
5349	5 ,, ,, ,, ,, ,,	5	13 ,,	7.05
5350	6 ,, ,, ,, ,, ,,	5	14 ,,	8.00

If furnished with special heavy chain over 3 feet in length, add to list.....per ft., .31
If furnished with sockets wired, add to list.....per light, .20



No. 5385.

CLUSTERS, Hubbell.

Hubbell Fixture Pull Clusters.

This cluster, although of the same general make-up as the regular cluster, is designed for more ornamental work.

It is equipped with 2¼ Hubbell shade holders without shades. Not wired.

Standard length of chain from bottom of cluster, 3 feet, not wired.

No.		Std. Pkg.	Pkg. Wt.	Price.
5384.	2-light fixture, pull cluster, Ed. base,	5	8 lbs.	$3.55
5385.	3 ,, ,, ,, ,, ,, ,,	5	9 ,,	4.50
5386.	4 ,, ,, ,, ,, ,, ,,	5	10 ,,	5.50
5387.	5 ,, ,, ,, ,, ,, ,,	5	11 ,,	6.50
5388.	6 ,, ,, ,, ,, ,, ,,	5	12 ,,	7.50

If furnished with chain over 3 feet in length, add to list per ft., .10
If furnished with sockets wired, add to list ..... per light, .20



No. 5400.

Hubbell Side Wall Pull Clusters.

This fixture, while both ornamental and substantial, is conveniently reached for turning on and off the lights by the chain, and, like the pull cluster, dispenses with extra wiring and wall switches. It is well adapted to halls and public rooms, where it is desirable to place the fixture at a greater height than would be convenient with the key socket. It is fitted with 2¼-inch Hubbell shade holders, without shades. Not wired.

Standard length of chain measuring from button to acorn, one foot.

No.		Std. Pkg.	Pkg. Wt.	Price.
5400.	Side wall pull cluster, straight electric Ed. sockets	5	10 lbs.	$5.50

If furnished with chain over 1 ft. in length, add to list, per ft., .10
If furnished wired, add to list 1.00



No. 5196. Keyless.

Hubbell Key and Keyless Clusters.

This cluster is made on the same general plan as the pull cluster, except the regular key or keyless socket is used instead of the pull socket and chain. When used with the regular pull clusters it furnishes a uniform design throughout the building, at the same time being much more substantial than any other key cluster, as the caps of the socket are a part of the cluster centre, and are not attached to the centre by a threaded nipple.

Cluster complete with sockets attached and shade holder. Not wired.

Furnished for ⅝-inch stem unless otherwise specified.

No.		Std. Pkg.	Pkg. Wt.	Price.
5195.	2-light key cluster, Ed. base	5	7 lbs.	$1.85
,, 5196.	3 ,, ,, ,, ,, ,,	5	8 ,,	2.25
,, 5197.	4 ,, ,, ,, ,, ,,	5	9 ,,	2.75
,, 5198.	5 ,, ,, ,, ,, ,,	5	10 ,,	3.20
,, 5199.	6 ,, ,, ,, ,, ,,	5	11 ,,	3.65

If furnished with sockets wired, add to list ..... per light, .20

CLUSTERS, Street (see Fixtures, street).
COFFEE Biggin (see B).
COFFEE Pot (see Pots).
COFFEE Percolator (see Percolators, Urns, etc.).
COILS, see following headings:

Coils, Armature.
,, Choke (see Arresters).
,, Field.
,, Gas Engine (see Coils, spark).
,, Heater (see Heaters).
,, Induction (see Telephones, and Coils, spark).
,, Kicking (see Arresters).
,, Medical.
,, Repeating (see Telephones).
,, Retardation (see Telephones).
,, Shunt (see Boxes, shunt).
,, Spark.
,, Telephone (see Telephones).
,, X-Ray.

COILS, Armature.







Armature Coils.

G. E. Armature Coils.

No.	Type Motor.	No. Turns.	Size Wire.	No. Coils per Set.
18221	G. E. 800	3	No. 10 B. & S.	105
18222	,, 800	4	,, 10 ,,	105
19346	,, 800	3	,, 9 ,,	105
19347	,, 800	4	,, 9 ,,	105
14778	,, 1000	3	,, 9 ,,	93
14779	,, 1000	4	,, 9 ,,	93
18098	,, 1200	2	,, 10 ,,	105
18099	,, 1200	3	,, 10 ,,	105
24917	,, 51	2	2 No. 7 ,,	37
14585	,, 52	4	,, 10 ,,	29
14586	,, 52	6	,, 11 ,,	29
55755	,, 53	3	2 No. 10 ,,	37
55756	,, 53	4	,, 8 ,,	33
55757	,, 53	5	,, 8 ,,	33
55758	,, 53	6	,, 10 ,,	37
11352	,, 54	3	,, 10 ,,	29
50591	,, 55 upper	1	,, 19 ,,	47
50592	,, 55 lower	1	,, 19 ,,	47
19221	,, 57	2	2 No. 9 ,,	37
50258	,, 57	3	,, 9 ,,	33
50455	,, 58	4	,, 8 ,,	33
50456	,, 58	6	,, 9 ,,	33
52397	,, 60	4	,, 10 ,,	37
52398	,, 60	6	,, 11 ,,	37
24960	,, 61	4	,, 8 ,,	41
14585	,, 62	4	,, 10 ,,	29
36861	,, 64	3	,, 7 ,,	35
24870	,, 66 upper	1	.065 x .65	29
24871	,, 66 lower	1	.065 x .65	39
55881	,, 67	3	9	37
33731	,, 69 upper	1	.55 in. x .115 in.	31
33732	,, 69 lower	1	.55 ,, x .115 ,,	31
36848	,, 70	3	No. 9 B. & S.	37
24967	,, 73	2	2 No. 8 ,,	39
33733	,, 74	2	,, 9 ,,	39
52398	,, 77	6	,, 11 ,,	37
	,, 78			
36848	,, 80	3	,, 9 ,,	37
11352	,, 81	3	,, 10 ,,	29
43545	,, 84		,, 17½ ,,	35
43546	,, 84		,, 17 ,,	35
43097	,, 87	2	,, 10 ,,	43
	,, 90	3	,, 9 ,,	37
	,, 94			

Lorain or Steel Armature Coils.

No.	Type Motor.	No. Turns.	Size Wire.	No. Coils per Set.
H–1106	20	4	No. 9 B. & S.	33
H–1107	22	4	,, 8 ,,	29
H–1108	22	5	,, 9 ,,	29
H–1109	34	3	,, 7 ,,	33

Christensen Armature Coils.

No.	Type Motor.	No. Turns.	Size Wire.	No. Coils per Set.
H–1110	AA1	11	No. 21 B. & S.	29
H–1111	B2	9	,, 18 ,,	47
H–1112	D			47

Westinghouse Armature Coils.

No.	Westinghouse.	No. Turns.	Size Wire.	No. Coils per Set.
1206	3	4	11 B. & S.	97
22024	12 25 H. P.	5	10 ,,	45
905	12A H. S.	4	10 ,,	47
2504	12A S. S. 30 H. P.	5	10 ,,	47
2504	12A 25 H. P. S. S.	5	11 ,,	47
	36			47

(*Continued on next page.*)

COILS, Armature.

Westinghouse Armature Coils (Continued).

No.	Westinghouse.	No. Turns.	Size Wire.	No. Coils per Set.
2617	38A	2	9 B. & S.	45
2617	38B	2	9 ,,	45
7664	49	3	9 ,,	59
25896	50E	3	$\frac{5}{64}$ x $\frac{5}{8}$ in. strap	55
16252	56	3	10 B. & S.	39
25431	68	3	12 ,,	55
26761	69	4	10 ,,	35
25248	76	2	9 ,,	39
.....	83	4	$\frac{3}{64}$ x $\frac{5}{8}$ in. strap	49
.....	85	3	9 B. & S.	39
.....	86	3	$\frac{1}{8}$ x $\frac{7}{16}$ in. strap	53
45362	92	3	10 B. & S.	41
55455	93	3	2–10 B. & S.	45
.....	95	3	9 ,,	37
40999	101B	3	9 ,,	37
.....	112	5	$\frac{3}{64}$ x $\frac{1}{2}$ in. strap	
.....	115			
.....	121			

Prices on application.

COILS, Choke (see Arresters).

COILS, Field.

G. E. Field Coils.

No.	Type.	Arm. Turns.	Size Wire.	No. of Turns.
15448	W. P. 30	Std.	No. 4 B. & S.	374
15952	,, 50	,,	,, 4 ,,	202
27388	G. E. 800	1	,, 4 ,,	62
17142 } 17749 }	,, 800	3 & 4	,, 6 ,,	203
27388	,, 800	2	,, 4 ,,	62
24913 } 24970 }	,, 800	6	,, 7 ,,	259
14768	,, 1000	3 & 4	,, 4 ,,	143½
24972	,, 1200	1	.050 in. x $\frac{13}{16}$ in.	68
18020	,, 1200	2 & 3	.045 ,, x $\frac{13}{16}$,,	138
18021	,, 1200	4	No. 5 B. & S.	198
18155	,, 2000	1	2 in. x .06 in.	84
24916	,, 51	1	$1\frac{1}{4}$ in. x .060 in.	36
24918	,, 51	2	$1\frac{1}{4}$,, x .080 ,,	58
24920	,, 52	2	No. 4 B. & S.	62½
24922	,, 52	3	,, 5 ,,	77½
15761	,, 52	4 & 5	,, 5 ,,	155½
21489	,, 52	6	,, 6 ,,	185½
52567	,, 53	2	1 in. x .0625 in.	60
52564	,, 53	3 & 4	1 ,, x .035 ,,	122
52565	,, 53	5	1 ,, x .035 ,,	140
52566	,, 53	6	No. 4 B. & S.	250½
11348	,, 54	3	,, 6 S. W. G.	128½
24937	,, 55	1	$1\frac{3}{8}$ in. x .185 in.	36
24938	,, 55	1	$1\frac{3}{8}$,, x .185 ,,	17
50535	,, 55	1	$1\frac{3}{8}$,, x 1 in.	62
50536	,, 55	1	$1\frac{3}{8}$,, x 1 ,,	29
24933	,, 55	1	$1\frac{3}{8}$,, x .12 in.	54
24934	,, 55	1	$1\frac{3}{8}$,, x .12 ,,	26
24941	,, 55	2	$1\frac{3}{8}$,, x .070 in.	86
24942	,, 55	2	$1\frac{3}{8}$,, x .070 ,,	43
24945	,, 55	3	$1\frac{3}{8}$,, x .045 ,,	126
24946	,, 55	3	$1\frac{3}{8}$,, x .045 ,,	63
24949	,, 57	1	$1\frac{5}{16}$,, x .090 ,,	44
24951	,, 57	2	$1\frac{5}{16}$,, x .080 ,,	50½
19222	,, 57	2	$1\frac{5}{16}$,, x .045 ,,	90
50240	,, 57	3	$1\frac{5}{16}$,, x .035 ,,	110½
24954	,, 57	4	$1\frac{5}{16}$,, x .030 ,,	124
21492	,, 57	6	No. 4 B. & S.	150

Prices on application.



Field Coil.

COILS, Field.

G. E. Field Coils (Continued).

No.	Type		Arm. Turns.	Size Wire.	No. of Turns.
24957	G. E.	58	2	No. 3 B. & S.	58½
24959	,,	58	3	,, 4 ,,	75½
50420	,,	58	4	,, 5 B. W. G.	144½
19212	,,	58	6	,, 6 S. W. G.	175½
52284	,,	60	2	,, 5 B. & S.	75½
52285	,,	60	3	,, 6 ,,	84½
52282	,,	60	4	,, 5 ,,	149½
52283	,,	60	6	,, 6 ,,	171½
24961	,,	61	4	,, 5 B. W. G.	58½
24963	,,	61	4	,, 3 B. & S.	118½
15761	,,	62	4	,, 5 ,,	155½
36862	,,	64	3	.035 in. x 1.625 in.	100
24844	,,	66	1	1⅛ in. x .120 in.	56
24845	,,	66	1	1 in. x .120 ,,	29
55857	,,	67	3	No. 5 B. W. G.	110½
33735	,,	69	1	2 in. x .110 in.	35
33736	,,	69	1	2 7/32 in. x .110 in.	35
55857	,,	70	3	No. 5 B. W. G.	110½
24968	,,	73	2	1⅛ in. x .08 in.	80
24969	,,	73	2	1 in. x .08 in.	40
33734	,,	74	2	1.53125 in. x .053 in.	70½
52285	,,	77	3	No. 6 B. & S.	84½
52283	,,	77	6	,, 6 ,,	171½
55857	,,	80	3	,, 5 B. W. G.	110½

Prices on application.

Westinghouse Field Coils.

1088	West.....	No.	3	20 H. P.	
1089	,, ...	,,	3	25 ,,	
1090	,, ...	,,	3	30 ,,	
978	,, ...	,,	12	25 ,,	
979	,, ...	,,	12	30 ,,	
39621	,, ...	,,	12A	25 ,,	upper
39622	,, ...	,,	12A	25 ,,	lower
39623	,, ...	,,	12A	30 ,,	S. S. upper
39624	,, ...	,,	12A	30 ,,	,, lower
39625	,, ...	,,	12A	30 ,,	H. S. upper
39626	,, ...	,,	12A	30 ,,	,, lower
2650	,, ...	,,	38B		upper
2651	,, ...	,,	38B		lower
7776	,, ...	,,	49		upper
7777	,, ...	,,	49		lower
25850	,, ...	,,	50E		
40326	,, ...	,,	56		
24453	,, ...	,,	68		
24197	,, ...	,,	69		
24592	,, ...	,,	76		
	,, ...	,,	82		
	,, ...	,,	83		
	,, ...	,,	85		
	,, ...	,,	86		
	,, ...	,,	89		
59912	,, ...	,,	92		
65449	,, ...	,,	92A		
55489	,, ...	,,	93A		
	,, ...	,,	95		
45235	,, ...	,,	101B		
58981	,, ...	,,	101D		

Prices upon application.

COILS, Gas Engine (see Coils, spark).

COILS, Heater (see Heaters).

COILS, Induction (see Telephones, and Coils, spark).

COILS, Kicking (see Arresters).

COILS, Medical.



No. 25.



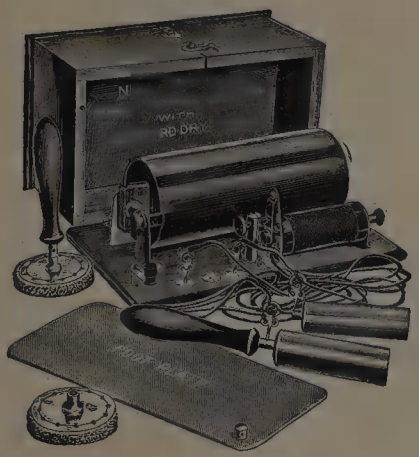
No. 26.



No. 28.



No. S-1107.
Medical Coil, with Scale.



New Home Medical Battery.



Electrode Handle.



Cylinder Electrodes. Sponge Electrode.



No. 2215.

Medical Coils.

No. 25. "Household" medical coil, 2½ x 3¾ in., polished wood base, nickeled handles and metal parts; will operate on one cell dry battery and has perfect regulation .....each, $ .90

No. 26. "Household" medical coil on round polished wood base, nickeled handles and metal parts. Contacts are of pure silver. One cell dry battery will operate, each, 1.00

No. 28. "Household" medical coil on rectangular polished wood base. Three different currents may be obtained,— primary, the secondary, and the two combined. Complete with improved cord tips and switch in a neat hinged and clasped box.....each, 2.50

No. S-1107. Graduated scale medical coil. A finely finished coil with scale on top by which the strength of the current may be accurately regulated. Gives two currents,— primary and secondary ....each, 2.00

New Home Medical Battery.

The New No. 4DD Home medical apparatus consists of a two-compartment case of polished hard wood in one of which is the battery coil and connections and in the other two cylindrical hand electrodes, two sponge electrodes, two wooden handles and connecting cords, and a foot plate. Dimensions of box, 9 x 5¼ x 4½ in. Weight complete, about 5½ lbs. Price complete..... $10.00

Duplicate parts and extras for above:

No. 2365. Electrode handle, wood.....each, $ .15
,, 2370. Cylinder hand electrode, n. p... ,, .15
,, 2371. ,, ,, ,, ,, ... ,, .15
(Fits into 2370.)
No. 2373. Sponge electrode..... ,, .20
,, 2358. Hair brush electrode..... ,, 1.50
,, 2211. Wrist electrode..... ,, .90
,, 2210. Massage roller electrode..... ,, .80
,, 2358. 3 ft. cords with tips.....per pair, .40
,, 2362. 4 ,, ,, ,, ,, ... ,, .50

Anti-Doc Medical Apparatus.

The Anti-Doc is a compact and reliable medical coil at a moderate price. Three currents are furnished, viz.: Primary, secondary, and a combination of the two.

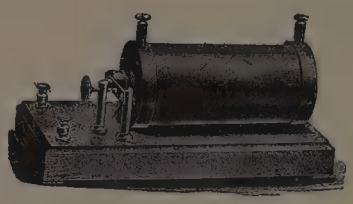
The following electrodes are included: Two metallic hand electrodes, one sponge electrode, one foot plate, one electrode handle, one pair cords with tips.

No. 2215. Apparatus complete.....each, $4.00

COILS, Repeating (see Telephones).

COILS, Retardation (see Telephones).

COILS, Shunt (see Boxes, shunt).



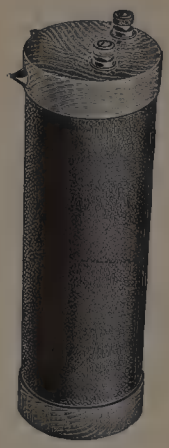
Rhumkorff Coil.

COILS, Spark.

Rhumkorff Coils.

Mounted on polished mahogany base.

List No.		No. of Fuller Bat. to use.	Price.
3305	$\frac{1}{8}$ in. spark lights, 4 burners,	6 cells,	$6.00
3306	$\frac{1}{4}$,, ,, ,, 4 ,,	6 ,,	7.00
3307	$\frac{1}{2}$,, ,, ,, 8 ,,	6 ,,	15.00
3308	$\frac{3}{4}$,, ,, ,, 12 ,,	8 ,,	24.00
3309	1 ,, ,, ,, 16 ,,	8 ,,	30.00
3310	$1\frac{1}{4}$,, ,, ,, 20 ,,	8 ,,	40.00
3311	$1\frac{1}{2}$,, ,, ,, 24 ,,	12 ,,	49.00
3312	2 ,, ,, ,, 32 ,,	12 ,,	62.00
3313	$2\frac{1}{2}$,, ,, ,, 40 ,,	12 ,,	70.00
3314	3 ,, ,, ,, 45 ,,	16 ,,	75.00
3315	$3\frac{1}{2}$,, ,, ,, 50 ,,	16 ,,	85.00
3316	4 ,, ,, ,, 55 ,,	18 ,,	90.00
3317	5 ,, ,, ,, 60 ,,	18 ,,	100.00
3318	6 ,, ,, ,, 75 ,,	22 ,,	150.00



Spark Coil.

For Electric Gas Lighting Work.

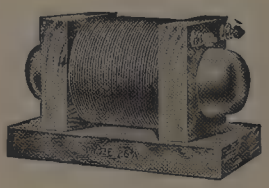
Type 2A.....	8 in. long, No. 14 wire.....each,	$1.60
,, 3A.....	10 ,, ,, ,, 14 ,, ... ,,	2.10
,, 4A.....	12 ,, ,, ,, 14 ,, ... ,,	2.50
,, P-164.....	8 ,, ,, ,, 16 ,, ... ,,	1.20
,, P-165.....	10 ,, ,, ,, 16 ,, ... ,,	1.50
,, P-257.....	12 ,, ,, ,, 16 ,, ... ,,	2.00

Waterproof coils 20 cents each extra.

For Gas Engine Work (wipe spark).

Type 6A.....	8 in. long, No. 14 wire.....each,	$2.06
,, 7A.....	10 ,, ,, ,, 14 ,, ... ,,	2.64
,, 8A.....	12 ,, ,, ,, 14 ,, ... ,,	3.40

Waterproof coils 20 cents each extra.



27A.

Edison Type Spark Coil.

For Gas Engine Work (wipe spark).

Type 27A.....6 in. long, No. 14 wire.....each, $3.30

A short thick coil, especially designed to give a quick saturation enabling one to get a hot spark on a high speed engine.

Connecticut Coils.

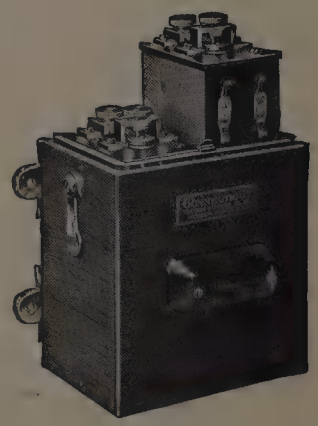
Constructed on the interchangeable unit plan; each unit self-contained; no wires to disconnect.

An extra unit may be carried and put in without stopping your engine.

Rapid vibrator giving the hottest possible spark with great economy of current. May be adjusted to operate perfectly on $\frac{1}{4}$ ampere. (See Indicator, current.)

Spark points may be cleaned without changing adjustment of vibrator. Binding-posts at bottom of case protected by water drip.

All coils supplied with either type L or type P switches. (See Switches, gas engine.)



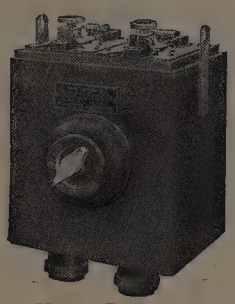
Connecticut Two-Cylinder, Dash Coil, Cover Removed.

Dash Coils.

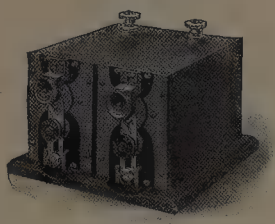
No. S-1108. 1-cylinder Connecticut coil.....each,	$16.00
,, S-1109. 2 ,, ,, ,, ... ,,	30.00
,, S-1111. 4 ,, ,, ,, ... ,,	60.00
,, S-1112. Separate units ..... ,,	14.00

Box Coils.

No. S-1110. 1-cylinder box coil.....each, $15.00



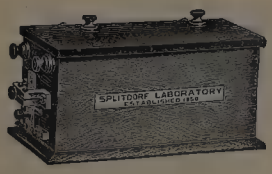
Heinze Dash Coil.



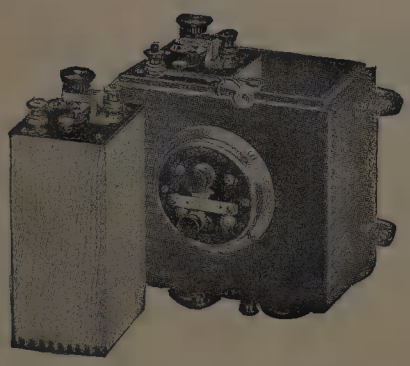
Heinze Marine or Box Coil.



Splitdorf Motor Cycle Coil.



Splitdorf Box Coil.



Splitdorf Two-Cylinder Dash Coil.

COILS, Spark (Continued).

Heinze Coils.

Dash Coils.

These are equipped with rosette switch, and coil units are interchangeable. Coils will not burn out or break down when using more batteries than usual. The trembler has wide range of adjustment and is positive in its action.

B-40.	1-cylinder dash coil	each,	$18.00
B-36.	2 ,, ,, ,,	,,	32.00
B-31.	3 ,, ,, ,,	,,	45.00
B-35.	4 ,, ,, ,,	,,	60.00
B-39.	5 ,, ,, ,,	,,	75.00
B-34.	6 ,, ,, ,,	,,	85.00
B-41.	8 ,, ,, ,,	,,	100.00

Marine or Box Coil.

B-18.	1-cylinder box coil	each,	$12.00
B-17.	2 ,, ,, ,,	,,	20.00
B-30.	3 ,, ,, ,,	,,	30.00
B-25.	4 ,, ,, ,,	,,	40.00
B-42	5 ,, ,, ,,	,,	50.00
B-55.	6 ,, ,, ,,	,,	60.00
B-43.	8 ,, ,, ,,	,,	80.00

Splitdorf Coils.

For Motor Cycles (jump spark).

No. S-1113.	Long motor cycle coil, 10 x 2½ in.	each,	$9.00
,, S-1114.	Short motor cycle coil, 6½ x 3 in.	,,	9.00

Splitdorf Box Type Coils.

The box type coils are particularly adapted for use on medium priced automobiles and in motor boats where a locker is provided to protect from moisture.

Put up neatly in finished plain oak cases.

No. 1.	Standard vibrating coil (1-cylinder engine), 8 in. long, 3¾ in. wide, 4 in. deep	each,	$10.00
No. 2.	Standard vibrating coil (2-cylinder engine), 8 in. long, 6¾ in. wide, 4 in. deep	each,	20.00
No. 3.	Standard vibrating coil (3-cylinder engine), 8 in. long, 9 in. wide, 4 in. deep	each,	30.00
No. 4.	Standard vibrating coil (4-cylinder engine), 8 in. long, 12 in. wide, 4 in deep	each,	40.00

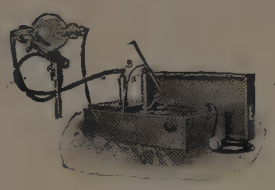
Splitdorf Dash Coils.

All Splitdorf Dash coils are constructed on the unit system, and have the hammer blow Bogert vibrator and ball bearing ratchet screw, single adjustment. All coils equipped with patent auxiliary condenser which causes coils to work with or without vibrator automatically.

In the " Narrow " type the units are placed lengthwise which increases the length and reduces the width of the box.

No. 1.	Dash coil (1-cylinder engine), Peerless or Narrow type	each,	$12.00
No. 2.	Dash coil (2-cylinder engine), Peerless or Narrow type	each,	24.00
No. 3.	Dash coil (3-cylinder engine), Peerless or Narrow type	each,	36.00
No. 4.	Dash coil (4-cylinder engine), Peerless or Narrow type	each,	48.00
	Dash type, equipped with cut-out switch	extra,	2.00
	Cut-out switch	each,	1.00
	Dash coil units	,,	8.00
	Equipped with switch	extra,	2.00

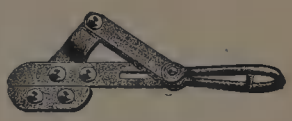
COILS, Telephone (see Telephones).



X-Ray Coil.



Colorine.



Buffalo Grip.



Grip with Pulleys.



For Insulated Wire.



Lineman's Tool.



Common Eccentric Clamp.



Haven's Clamp.

COILS, X-Ray.

Campbell X-Ray and High-Frequency Coil

Operates from any incandescent lighting socket, direct or alternating current. Indispensable to the physician and hospital. Produces X-Ray suitable for the best of radiographic and fluoroscopic work.

Generates a most powerful, high frequency current, which may be very finely controlled for application with vacuum electrodes. Prices on application.

COLD Chisels (see Chisels).

COLLARS (see Lights, ceiling).

COLLARS, Speaking Tube (see Tube).

COLORINE.

Colorine.

Used for coloring and frosting incandescent lamps, glassware, etc. Put up in bottles, in the following colors: red, ruby, blue, green, purple, pink, amber, canary, frosting, and violet.

S-1115.	Gallon bottles	each,	$13.00
S-1116.	One-half gallon bottles	,,	6.60
S-1117.	One quart bottles (32 oz.)	,,	3.50
S-1118.	One pint bottles (16 oz.)	,,	3.00
S-1119.	One-half pint bottles (8 oz.)	,,	1.50
S-1120.	Six-ounce bottles	,,	1.00

COLUMBIA Insulators (see I).

COLUMN Lights (see Lights).

COME-ALONGS.

Buffalo Grips for Bare Wires (see also Vise).

No. 1.	For wires from smallest size up to No. 6. Opens to .22 in., weight, $1\frac{1}{4}$ lbs.	each,	$2.50
No. 1.	With pulley to take $\frac{3}{8}$-in. rope. Weight, $1\frac{1}{2}$ lbs.	each,	3.00
No. 2.	For wires from smallest size up to No. 0. Opens to .35 in., weight, $1\frac{3}{4}$ lbs.	each,	4.00
No. 2.	With pulleys to take $\frac{7}{16}$-in. rope. Weight, $2\frac{3}{4}$ lbs.	each,	4.50
No. 3.	For wires from smallest size up to No. 0000. Opens to .48 in., weight, 5 lbs.	each,	6.00
No. 3.	With pulleys to take $\frac{5}{8}$-in. rope. Weight, $7\frac{1}{2}$ lbs.	each,	6.50

Buffalo Grips for Insulated Wires.

No. 4.	Opens to .52 in., taking weatherproof wire, sizes No. 6 to No. 1 inclusive. Weight, $2\frac{3}{4}$ lbs.	each,	$4.00
No. 4.	With pulleys for $\frac{7}{16}$-in. rope	,,	4.50
,, 5.	Opens to .68 in., taking weatherproof wire, sizes No. 4 to No. 4/0 inclusive. Weight, $4\frac{3}{4}$ lbs.	each,	5.00
No. 5.	With pulleys for $\frac{5}{8}$-in. rope	,,	5.50

Buffalo Lineman's Tool, with Strap, Clamp, and Hook.

No. 1.	Opens to .22 in., for No. 6 wire and smaller. Weight, $2\frac{1}{2}$ lbs	each,	$5.00
No. 2.	Opens to .35 in., for No. 0 wire and smaller. Weight, $4\frac{3}{4}$ lbs	each,	6.50
No. 4.	Opens to .52 in., for weatherproof wires, No. 6 to No. 1 inclusive	each,	6.50

Common Eccentric Clamps.

No. 360.	For No. 8 wire and smaller, brass	each,	$2.00
,, 361.	,, ,, 8 ,, ,, ,, steel	,,	1.60

Haven's Clamps.

No. 368.	For No. 8 wire and smaller, steel	each,	$3.00
,, 369.	,, $\frac{1}{2}$-in. wires and smaller, steel. Weight, $2\frac{1}{2}$ lbs.	each,	5.50



Style A.



Style B.



Style C.



Parallel Clamp.



Landee's Clamp.



Ring Come-Along.

COME-ALONGS (Continued).

Klein's Clamps, Style A.

No. 366. Polished brass, for No. 8 and finer wire, each, $3.00

No. 367. Polished steel, for ½-in. and finer wire. Weight, 2½ lbs. ..... each, 5.50

Klein's Clamp, Style B.

No. 370. For No. 6 wire and finer. Weight, 1½ lbs. Polished brass finish ..... each, $4.10

Klein's Clamps, Style C.

No. 371. For No. 4 wire and finer, polished brass finish. Weight, 2 lbs. ..... each, $5.50

No. 372. For No. 4 to 0 wire, polished brass finish. Weight, 5 lbs. ..... each, 10.00

No. 372A. For No. 0 to 0000 wire. Weight, 5 lbs., each, 12.00

Klein's Parallel Screw Clamps For Trolley Wire.

No.		Each.
373.	Grooved for No. 0 and 00, weight, 7 lbs. ...	$3.60
373A.	,, ,, ,, 00 ,, 000 ,, 7½ ,, ...	4.10
373B.	,, ,, ,, 000 ,, 0000 ,, 7¾ ,, ...	5.50

Landee's Clamp.

No. 365. Malleable iron polished, for No. 8 and finer wire ..... each, $2.50

Ring Come-Alongs.

No. 940.	For No. 9 wire and smaller ..... each,	$1.00
,, 941.	,, ,, 3 ,, ,, ,, ... ,,	2.00
,, 942.	,, ,, 000 ,, ,, ,, ... ,,	2.50

COMMUTATORS (see also Timers).



Assembled Commutator Segments For General Electric Co. Motors.

No. 14526.	For type W. P.		30	motor, form	1	64 bars
,, 14527.	,, ,, ,,		30	,, ,,	4	64 ,,
,, 19291.	,, ,, ,,		30	,, ,,	6	64 ,,
,, 19293.	,, ,, ,,		30	,, ,,	7	64 ,,
,, 19369.	,, ,, ,,		50	,, ,,	1	64 ,,
,, 19370.	,, ,, ,,		50	,, ,,	4	64 ,,
,, 19372.	,, ,, ,,		50	,, ,,	6	64 ,,
,, 19374.	,, ,, ,,		50	,, ,,	7	64 ,,
,, 16388.	,, ,,	G. E.	800	,, ,,	4	105 ,,
,, 16389.	,, ,, ,,		800	,, ,,	6	105 ,,
,, 52985.	,, ,, ,,		800	,, ,,	7	105 ,,
,, 16300.	,, ,, ,,		1000	,, ,,	1	93 ,,
,, 16390.	,, ,, ,,		1000	,, ,,	2	93 ,,
,, 16391.	,, ,, ,,		1000	,, ,,	3	93 ,,
,, 55776.	,, ,, ,,		1200	,, ,,	2	105 ,,
,, 14501.	,, ,, ,,		1200	,, ,,	4	105 ,,
,, 14528.	,, ,, ,,		51	,, ,,	2	111 ,,
,, 14530.	,, ,, ,,		52	,, ,,	4 & 5	87 ,,
,, 52988.	,, ,, ,,		53	,, ,,	4 & 5	99 ,,
,, 52989.	,, ,, ,,		53	,, ,,	6	111 ,,
,, 55780.	,, ,, ,,		54	,, ,,	3	115 ,,
,, 50581.	,, ,, ,,		55	,, ,,	1	141 ,,
,, 55783.	,, ,, ,,		57	,, ,,	2	99 ,,
,, 50287.	,, ,, ,,		57	,, ,,	3	111 ,,
,, 50448.	,, ,, ,,		58	,, ,,	4	99 ,,
,, 50449.	,, ,, ,,		58	,, ,,	6	99 ,,
,, 52388.	,, ,, ,,		60	,, ,,	4	111 ,,
,, 52389.	,, ,, ,,		60	,, ,,	6	111 ,,

(Continued on next page.)

COMMUTATORS.

Assembled Commutator Segments For General Electric Co. Motors (Continued).

No. 55786.	For type G. E.	61	motor, form	4	123 bars
,, 14530.	,, ,, ,,	62	,, ,,	4	111 ,,
,, 36863.	,, ,, ,,	64	,, ,,	3	111 ,,
,, 24876.	,, ,, ,,	66	,, ,,	1	195 ,,
,, 55788.	,, ,, ,,	67	,, ,,	3	111 ,,
,, 33788.	,, ,, ,,	69	,, ,,	1	111 ,,
,, 33739.	,, ,, ,,	70	,, ,,	3	111 ,,
,, 24973.	,, ,, ,,	73	,, ,,	2	117 ,,
,, 33737.	,, ,, ,,	74	,, ,,	2	117 ,,
,, 36865.	,, ,, ,,	77	,, ,,	6	
,, 33739.	,, ,, ,,	80	,, ,,	3	111 bars
		90	,,		111 ,,
Prices on application.		94	,,		111 ,,

Assembled Commutator Segments For Westinghouse Motors.

No. 26067.	For type	3	motor	95 bars
,, 26070.	,, ,,	12	,,	93 ,,
,, 16759.	,, ,,	12A	,,	93 ,,
,,	,, ,,	12C	,,	93 ,,
,,	,, ,,	36	,,	93 ,,
,, 25386.	,, ,,	38A	,,	135 ,,
,, 25359.	,, ,,	38B	,,	135 ,,
,, 7479.	,, ,,	49	,,	117 ,,
,, 25839.	,, ,,	50E	,,	165 ,,
,, 16246.	,, ,,	56	,,	117 ,,
,, 25409.	,, ,,	68	,,	109 ,,
,, 26763.	,, ,,	69	,,	105 ,,
,, 25249.	,, ,,	76	,,	117 ,,
,, 27420.	,, ,,	79	,,	93 ,,
,,	,, ,,	83	,,	196 ,,
,,	,, ,,	85	,,	117 ,,
,,	,, ,,	86	,,	159 ,,
,,	,, ,,	89	,,	135 ,,
,, 71626.	,, ,,	92	,,	123 ,,
,, 71625.	,, ,,	92A	,,	123 ,,
,, 55466.	,, ,,	93	,,	135 ,,
,,	,, ,,	95	,,	111 ,,
,, 59882.	,, ,,	101B	,,	111 ,,
,,	,, ,,	112	,,	225 ,,
,,	,, ,,	113	,,	155 ,,

Prices on application.



Assembled Segments.

For Christensen Air Motors.

No. H-1120. For type AA1 motor..... 87 bars
,, H-1121. ,, ,, B2 ,, ...111 ,,

For Lorain Steel Motors.

No. H-1122. For type 22 motor..... 87 bars
,, H-1123. ,, ,, 34 ,, ... 99 ,,

For Walker Motor.

No. H-1124. For type 25 H. P. motor..... 95 bars

Prices on application.

COMMUTATOR Stone (see S).

COMMUTATOR Truing Device (see D).

COMPOUND, Chatterton.

No. 28 Chatterton Compound.

An explanation of the composition of this material is unnecessary. It is used simply by heating with a blow torch and winding around electrical joints for insulation purposes. This is a cheap grade of compound. For a higher grade use No. 29. This cement is made of good serviceable material, with adequate care, from imported gutta percha, and has a high melting point.

net, per lb., $ .40

COMPOUND, Chatterton (Continued).

No. 29 Chatterton Compound.

This is the high grade Chatterton compound, and is used where a fine quality compound of this nature is required. It is waterproof and very elastic, with a high melting point. No. 29 Chatterton compound contains the best quality gutta percha carefully compounded.....net, per lb., $ .70



COMPOUND, Commutator.

Commutator Compound.

S-1131.	Anti-Spark, K. & W.	per doz.,	$2.50
S-1132.	Crown, small size stick	,,	3.00
S-1133.	,, large ,, ,,	,,	5.00
S-1134.	Gale's	,,	8.00
S-1135.	Gold Medal (Le Valley)	,,	4.20
S-1136.	,, ,, ,,	per stick,	.50
S-1137.	Old Colony	per doz.,	5.00
S-1138.	Trotter's, small size stick	,,	3.00
S-1139.	,, large ,, ,,	,,	5.00

COMPOUND, Depolarizing (see Depolarizer).

COMPOUND, Insulating.

No. 50 Insulating Compound.

This is a permanently plastic compound for armature and field coils, guaranteed to remain permanently plastic in armatures and fields.

No. 50 is used in the same manner as Armalac, and is supplied principally to meet the demand for a cheaper compound.

In barrels	per gal.,	$1.00
In cans, 1, 2, 5 or 10 gals	,,	1.35

COMPOUND, M. I. C.

M. I. C. Compound.

No. 1. Full rubber, baking; for armature coils, field magnet coils, wires and cables, transformers, for covering cloth, paper, asbestos, hard fibre, and wherever the highest insulation and protection from moisture is required. Air dries in six hours. Bakes hard, but elastic at 300° F. in eight hours.

No. 2. Half rubber, baking; for all out-door work: generators, motors, arc lamps, overhead line construction, boilers, smoke stacks, etc. Air dries in six hours. Bakes hard, but elastic at 300° F. in eight hours.

No. 3. Full rubber, air drying; dust dry in one hour.

,, 4. Half rubber, air drying; dust dry in half an hour.

	In Bbls. of about 50 Gals. Per Gal.	In half Bbls. of about 25 Gals. Per Gal.	In 5- or 10-Gal. Cans. Per Gal.	In 1-Gal. Cans. Per Gal.	In 1-Qt. Cans. Per Gal.
No. 1	$1.30	$1.40	$1.50	$1.75	$2.00
,, 2	1.10	1.20	1.30	1.50	1.75
,, 3	.90	.95	1.00	1.25	1.50
,, 4	.65	.70	.75	1.00	1.25

COMPOUNDS, P. & B.



P. & B. Compound.

For all general uses the No. 2 Compound is suitable. No. 1 is used where an almost immediate drier and greatest amount of penetration possible is desired. No. 1 leaves less surface coat than No. 2.

No. 1.

Barrels of about 50 gals	per gal.,	$1.50
½ barrel, 25 to 30 gals	,,	1.55
5- or 10-gal. cans	,,	1.60
2½-gal. cans, 2 in a case	,,	1.65
1 ,, ,, 6 ,, ,,	,,	1.75
½ ,, ,, 10 ,, ,,	,,	1.85
Quart and pint cans	,,	2.25

COMPOUNDS, P. & B.

P. & B. Compound (Continued).

No. 2.

Barrels of about 50 gals.	per gal.,	$1.25
½ barrel, 25 to 30 gals.	,,	1.35
5- or 10-gal. cans	,,	1.40
2½-gal. cans, 2 in a case	,,	1.45
1 ,, ,, 6 ,, ,,	,,	1.50
½ ,, ,, 10 ,, ,,	,,	1.60
Quart and pint cans	,,	2.00

COMPOUND, Splicing (see Tape).

CONDENSERS.

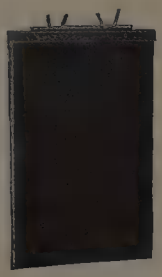


No. 525.

No. 525 Connecticut Telephone Condensers.

Absolutely guaranteed to the capacity given.

2 micro-farads	$2.50
1 ,,	2.00
½ ,,	1.00



Style A Condenser.

Wotton Process Condensers.

For central energy telephone systems; also used with great benefit to local battery magneto party line circuits, the condenser being inserted in the receiver circuit, thereby enabling one to ring the party line even if heavily loaded with a number of receivers off their hooks, without in any way interfering with the high frequency talking current.

To facilitate the installation of these condensers in the various makes of phones in use, they are offered in a number of styles:

Styles A and B are intended for installation inside of the telephone cabinet, to meet the needs of manufacturers and large telephone companies having expert instrument men.

Styles C and D are intended to be mounted on the outside of telephone cabinet, and as they only require the use of a screw driver and call for no special knowledge of telephone circuits they are suitable for installation by the lineman of the smaller companies and by subscribers themselves.

Style A Condensers.

This style is made up in enameled sheet metal cases, and, as before stated, is intended for mounting in the battery box or elsewhere inside of the telephone cabinet. As they are cut in permanently, connections are made to lugs.

This style is made in low capacities of ¼ and ½ micro-farad for use in magneto party line instruments and also in higher capacities for common battery work.



Style B Condenser.

No. 25A	¼	micro-farad	each,	$ .40
,, 50A	½	,,	,,	.45
,, 75A	¾	,,	,,	.55
,, 100A	1	,,	,,	.65
,, 150A	1½	,,	,,	.80
,, 200A	2	,,	,,	.90
,, 300A	3	,,	,,	1.35

Style B Condensers.

This style is similar to style A, in that it is made up in sheet metal cases and provided with connection lugs.

Its shape lends itself to use in places for which style A is not adapted.

This style is not made in low capacities and is intended principally for common battery instruments.

No. 110B	1	micro-farad	each,	$ .65
,, 150B	1½	,,	,,	.80
,, 200B	2	,,	,,	.90
,, 300B	3	,,	,,	1.35



Style C Condenser.

Style C Condensers.

This style is made up in hardwood cases and is adapted to mounting on the outside of a telephone or on the wall adjacent. Flexible leads are brought out for connection with the regular receiver binding-posts and binding-posts are provided on condenser case to which receiver cords connect. The whole device lends itself to easy installation by the most inexperienced person.

No. 25C	¼	micro-farad	each,	$1.05
,, 50C	½	,,	,,	1.10

CONDENSERS.



Style D Condenser.

Wotton Process Condensers (Continued).

Style D Condensers.

To provide a condenser which can be sold at a lower price than the style C we offer our style D, which is mounted in a substantial iron case japanned finish.

This style is also intended for mounting on the outside of telephone cabinet and lends itself to easy installation by the most inexperienced person.

No. 25D.....¼ micro-farad.....each, $ .90
,, 50D.....½ ,, ... ,, .95

C. & S. Condenser.

A standard condenser for telephone work having a capacity of 2 micro-farads.

No. 1750. Condenser.....each, $2.50



No. 1750.

CONDUCTORS, Flexible.

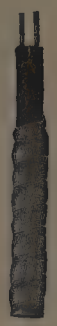
Electric Heater Conductors or Cords.

Special cord is required for use wherever flexible conductors are needed for connecting heaters to switches. It has a serviceable dark brown outer braid, and is the best possible product for use with heaters.

No. 920. B. & S. gauge 18, twin conductor.....per ft., $ .06
,, 925. ,, ,, 18, triple ,, ... ,, .09
,, 921. ,, ,, 16, twin ,, ... ,, .08
,, 926. ,, ,, 16, triple ,, ... ,, .12
,, 922. ,, ,, 14, twin ,, ... ,, .10
,, 927. ,, ,, 14, triple ,, ... ,, .15
,, 923. ,, ,, 12, twin ,, ... ,, .14
,, 928. ,, ,, 12, triple ,, ... ,, .21

Greenfield Flexible Steel Armored Conductors.

The Greenfield flexible steel armored conductors are particularly desirable for use under all conditions requiring extraordinary service in such places as machine shops, theatres, mills, show windows, factories, boiler and engine rooms, marine work, etc.



BX Conductor.

Twin Conductors, Type BX.

	Approx. Ft. in Coil.	Per 1,000 Ft.		Approx. Ft. in Coil.	Per 1,000 Ft.
No. 14. B. & S.	250	$104.00	No. 8. B. & S.	150	$210.00
,, 12. ,,	250	135.00	,, 6. ,,	100	370.00
,, 10. ,,	250	185.00			

Twin Conductors, Type BM.

For Marine Work.

No. 14. B. & S.	200	$139.00	No. 10. B. & S.	150	$220.00
,, 12. ,,	200	189.00			

Three Conductors, Type BX3.

No. 14. B. & S.	250	$138.00	No. 10. B. & S.	200	$235.00
,, 12. ,,	250	170.00	,, 8. ,,	200	325.00

Single Conductors, Type D.

No.	Approx. Ft. in Coil.	Solid per 1,000 Ft.	Stranded. per 1,000 Ft.	No.	Approx. Ft. in Coil.	Stranded per 1,000 Ft.
14. B. & S.	300	$75.00		4. B. & S.	200	$205.00
10. ,,	250	90.00	$95.00	2. ,,	200	266.00
8. ,,	250	106.00	115.00	1. ,,	100	315.00
6. ,,	250	145.00	160.00			



BXL Conductor.

Twin Conductors, Type BXL.

Lead Covered and Steel Armored.

	Approx. Ft. in Coil.	Per 1,000 Ft.		Approx. Ft. in Coil.	Per 1,000 Ft.
No. 14. B. & S.	200	$164.00	No. 10. B & S.	150	$255.00
,, 12. ,,	200	211.00	,, 8. ,,	150	325.00

Three Conductors, Type BXL3.

Lead Covered and Steel Armored.

No. 14. B. & S.	150	$222.00	No. 10. B. & S.	150	$292.00
,, 12. ,,	150	257.00			



No. 5302. Terminal Bushing.



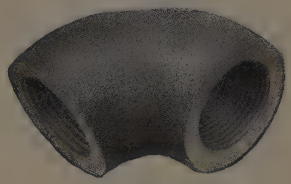
No. 5304. Socket Bushing.



No. 5303. Rosette Bushing.



Fibre Conduit.



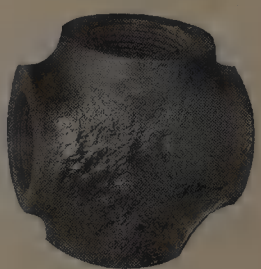
Elbow.



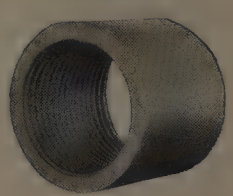
Tee.



Cap.



Cross.



Coupling.

CONDUCTORS, Flexible.

Greenfield Flexible Steel Armored Conductors (Continued).

Single Conductors, Type DL.

Lead Covered and Steel Armored.

	Approx. Ft. in Coil.	Per 1,000 Ft. Stranded.		Approx. Ft. in Coil.	Per 1,000 Ft. Stranded
No. 10. B. & S.	250	$120.00	No. 4. B. & S.	150	$249.00
,, 8. ,,	200	145.00	,, 2. ,,	150	319.00
,, 6. ,,	200	196.00	,, 1. ,,	100	388.00

Steel Armored Flexible Cord, Type E.

No. 18. B. & S.	300	$58.00	No. 14. B. & S.	200 $95.00
,, 16. ,,	300	65.00		

Steel Armored Flexible Cord, Type EM (Re-enforced).

No. 18. B. & S.	250	$111.00	No. 14. B. & S.	200 $145.00
,, 16. ,,	250	125.00		

Cord Fittings for Above.

Steel Bushings for	No. 18 & 16 Type E Cord.	No. 14 Type E Cord.	No. 18 & 16 Type EM Cord.	No. 14 Type EM Cord.
No. 5302 ..... per 100,	$6.00	$8.00	$11.00	$12.00
,, 5303 ..... ,,	13.00	15.00	20.00	22.00
,, 5304 ..... ,,	7.50	9.50	12.00	13.00

Brass Bushings for	No. 18 & 16 Type E Cord	No. 14 Type E Cord.	No. 18 & 16 Type EM Cord.	No. 14 Type EM Cord.
No. 5302 ..... per 100,	$12.00	$15.00	$24.00	$28.00
,, 5303 ..... ,,	30.00	33.00	40.00	43.00
,, 5304 ..... ,,	14.00	17.00	29.00	33.00

CONDUIT Bender (see B).

CONDUITS, Fibre.

Fibre Conduits.

A fibre conduit, made direct from wood pulp. Light weight, easy to handle, not affected by acids or alkalies, not injurious to the lead on lead cables, a good insulator.

Specially adapted to telegraph and telephone work and the installation of high potential electric service.

Can be installed by cheap labor and saves freight in transportation.

The 1-inch conduit is made in 2½-foot lengths, all other sizes in 5-foot lengths. The 1-, 1½-, 2-, 2½-inch sizes are made in either socket or sleeve connection, and the 3-, 3½- and 4-inch sizes are made with socket screw or sleeve connection.

In installing underground it is usually advisable to have each duct surrounded by concrete to prevent cracking due to settling of the soil.

Conduits.

		——COUPLING JOINT.——		SLIP JOINT, ¼-in. Walls.	
Inside Diameter Inches.	Thickness of Walls. Inches.	Nominal Weight per Ft. Pounds.	Price per Ft. Including Couplings.	Nominal Weight per Ft. Pounds.	Price per Ft.
1½	5/16	1.00	$ .11	.70	$ .08
2	3/8	1.45	.13	.85	.09
2½	3/8	1.75	.15	1.02	.10
3	7/16	2.40	.18	1.20	.12
4	½	3.33	.28	1.60	.15

Elbows, Tees, etc.

Inside Diameter of Pipe in Inches.	Elbows.	Tees.	Crosses.	Caps or Plugs.	Fibre Couplings.	90° Bends or "S" Bends. Socket.	Screw Inc. Ext. Coupling.
1½	$ .50	$ .75	$ .95	$ .25	$ .08	$ .90	$1.20
2	.60	.90	1.20	.30	.10	1.00	1.40
2½	.70	1.10	1.45	.35	.12	1.11	1.62
3	.90	1.40	1.90	.40	.14	1.32	1.80
4	1.40	2.00	2.75	.50	.21		

Junction boxes (8-in. x 8-in. interior dimensions), net each..... $2.88

Coupling mixture $1.00 per gallon, net.



Greenfield Flexible Conduit.

CONDUITS, Flexible.

Greenfield Flexible Metallic Conduits.

Galvanized Conduits.		Approximate Feet in Coil.		
No. S-1140.	$\frac{5}{16}$ in. inside diam.	200	per 100 ft.,	$3.35
,, S-1141.	$\frac{3}{8}$,, ,,	200	,,	5.10
,, S-1142.	$\frac{1}{2}$,, ,,	100	,,	10.00
,, S-1143.	$\frac{3}{4}$,, ,,	50	,,	13.00
,, S-1144.	1 ,, ,,	50	,,	21.00
,, S-1145.	$1\frac{1}{4}$,, ,,	50	,,	31.00
,, S-1146.	$1\frac{1}{2}$,, ,,	50	,,	42.00
,, S-1147.	2 ,, ,,	50	,,	57.00

Fittings for Above.

No.		$\frac{3}{8}$ In. per 100.	$\frac{1}{2}$ In. per 100.	$\frac{3}{4}$ In. per 100.	1 In. per 100.	$1\frac{1}{4}$ In. per 100.	$1\frac{1}{2}$ In. per 100.	2 In. per 100.
5104.	Couplings	$8.50	$9.25	$12.00	$16.00	$22.00	$30.00	$43.00
5320.	Lead bushings,	.90	.95	1.30	1.70	2.50	5.00	7.50
5105.	Clamp comb. coupling		12.50	16.00	21.00	30.00	40.00	60.00
5301.	Pipe hooks	.77	.90	1.45	1.90			
5350.	Pipe hooks	.65	.70	.80	.90	1.00	1.10	1.25



No. 5305.

Tools for Above Cord and Conductors.

No.		$\frac{3}{8}$ In. Ea.	$\frac{1}{2}$ In. Ea.	$\frac{3}{4}$ In. Ea.	1 In. Ea.	$1\frac{1}{4}$ In. Ea.	$1\frac{1}{2}$ In. Ea.	2 In. Ea.
5300.	Bushing tools,	$ .22	$ .22	$ .30	$ .35	$ .50	$ .75	$1.00



No. 5306.

No. 5305.	Cord armor cutter	each,	$ .40
,, 5306.	Cable armor cutter	,,	.70
,, 5307.	Special vises	,,	2.15
,, S-1148.	Reamers	,,	.70

American Circular Loom Tube and "Flexduct."

It is a flexible conduit of great durability, is easily handled, and can be cut to any desired length.

It can be used as an additional protection to wires in iron pipes, as a protection to wires which of a necessity are placed close together, as leads to machines; to separate wires of opposite polarity in switch boxes, switchboards and similar places, at outlets, on wires crossing other wires, wood work, brick, or stone. On wires fished in walls or ceilings, or on high tension wires placed close to walls and ceilings; in fact it is used in a hundred and one places.

Inside Diam.	Ft in. Coil.	Wt. per 1,000 Ft.	Cu. Ft. per Coil.	Price per Ft.
$\frac{1}{4}$ in.	250	75 lbs	1.18	$ .06
$\frac{3}{8}$,,	250	110 ,,	1.38	.07
$\frac{1}{2}$,,	200	125 ,,	1.58	.08
$\frac{5}{8}$,,	200	155 ,,	2.28	.10
$\frac{3}{4}$,,	150	200 ,,	2.38	.12
1 ,,	100	275 ,,	2.48	.16
$1\frac{1}{4}$,,	100	360 ,,	3.74	.20
*$1\frac{1}{2}$,,	Odd lengths	400 ,,		.34
*$1\frac{3}{4}$,,	,, ,,	440 ,,		40
*2 ,,	,, ,,			.50
*$2\frac{1}{4}$,,	,, ,,			.65

* We do not guarantee to furnish these sizes in any definite lengths, a standard coil is 100 feet; however, it may not all be in one length.



CONDUITS, Rigid Iron.

Iron Conduits.

Size.	Actual Outside Diam. In.	Nom. Inside Diam. In.	No. Threads per Inch of Screw.	Nom. Wt. per Ft. Lbs.	Conduit Price per 100 Ft
$\frac{1}{2}$	.84	.62	14	.85	$12 50
$\frac{3}{4}$	1.05	.82	14	1.12	16.00
1	1.31	1.04	$11\frac{1}{2}$	1.67	21.00
$1\frac{1}{4}$	1.66	1.38	$11\frac{1}{2}$	2.24	30 00
$1\frac{1}{2}$	1.90	1.61	$11\frac{1}{2}$	2.68	34 00
2	2.37	2.06	$11\frac{1}{2}$	3.61	47.00
$2\frac{1}{2}$	2.87	2.46	8	5.74	73 00
3	3.50	3.06	8	7.54	107 00
$3\frac{1}{2}$	4.00	3.54	8	9.00	141 00
4	4.50	4.02	8	10.66	175.00



Iron Conduit.

Tubes in 10-foot lengths, threaded both ends, with coupling.

CONDUITS, Rigid Iron.

Iron Conduits (Continued).



Coupling.

Couplings.

Size.	Wt. per 100, in Lbs.	Price per 100.
½	15½	$8.00
¾	25½	11.00
1	40½	13.00
1¼	57½	17.00
1½	71¼	21.00
2	132	28.00
2½	185	40.00
3	300	60.00
3½	400	100.00
4	412	140.00

Elbows.

Wt. per 100, in Lbs.	Radius. In.	Offset. In.	Price per 100.
73	4.25	7.50	$22.00
132	5.37	9.25	27.00
200	5.75	10.12	45.00
300	7.25	11.50	70.00
415	8.50	12.62	115.00
700	9.50	15.25	200.00
1138	10.50	17.75	310.00
1885	13.00	19.37	900.00
2100	15.00	21.00	2,000.00
2160	16.00	22.50	2,295.00

CONDULETS.

Condulets for Rigid Conduit.

Covers of all condulets of the same size and type are interchangeable.

All condulets are tapped for standard pipe threads.

Unit packages: One half inch (½-inch) condulets are packed ten in a unit package. Three-quarter inch (¾-inch) and one-inch (1-inch) condulets are packed five in a unit package. One and one-quarter inch (1¼-inch) condulets and larger are packed one in a unit package.

Standard packages: Condulets of the same size and type having one-, two-, or three-wire porcelain covers may be assorted to make up standard package quantities.

Condulets of the same size and type having metal covers may be assorted to make up standard package quantities.

Condulets of the same size and type having porcelain covers with nipples may be assorted to make up standard package quantities.

Condulets having covers for weatherproof sockets are not assorted.

Owing to the great number of styles and sizes of condulets we are able to list ½- and ¾-inch sizes only. Prices on other sizes and styles on application.



Type A.

Type A Condulets.

Style of Cover.	For ½-Inch Conduit. No.	Std. Pkg.	Each.	For ¾-Inch Conduit. No.	Std. Pkg.	Each.
Blank metal	A-10	200	$ .32	A-20	100	$ .42
Porcelain, 1 wire	A-11	200	.34	A-21	100	.46
,, 2 ,,	A-12	200	.34	A-22	100	.46
,, 3 ,,	A-13	200	.34	A-23	100	.46
,, for W. P. socket	A-14	200	.40	A-24	100	.56
Metal, ⅛ male nipple	A-15	200	.44	A-25	100	.56
,, ⅛ female ,,	A-16	200	.44	A-26	100	.56
,, ⅜ male ,,	A-17	200	.49	A-27	100	.61
,, ⅜ female ,,	A-18	200	.49	A-28	100	.61
Porcelain, ⅛ male nipple	A-19	200	.49	A-29	100	.61
,, ⅛ female ,,	A-110	200	.49	A-210	100	.61
,, ⅜ male ,,	A-111	200	.59	A-211	100	.72
,, ⅜ female ,,	A-112	200	.59	A-212	100	.72



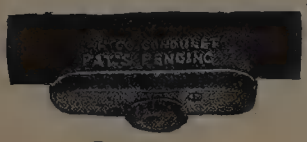
Type B.

Type ■ Condulets.

Blank metal	B-10	200	$ .37	B-20	100	$ .47
Porcelain, 1 wire	B-11	200	.39	B-21	100	.51
,, 2 ,,	B-12	200	.39	B-22	100	.51
,, 3 ,,	B-13	200	.39	B-23	100	.51
,, for W. P. socket	B-14	150	.45	B-24	100	.61
Metal, ⅛ male nipple	B-15	200	.49	B-25	100	.61
,, ⅛ female ,,	B-16	200	.49	B-26	100	.61
,, ⅜ male ,,	B-17	200	.54	B-27	100	.66
,, ⅜ female ,,	B-18	200	.54	B-28	100	.66
Porcelain, ⅛ male nipple	B-19	200	.54	B-29	100	.66
,, ⅛ female ,,	B-110	200	.54	B-210	100	.66
,, ⅜ male ,,	B-111	200	.64	B-211	100	.77
,, ⅜ female ,,	B-112	200	.64	B-212	100	.77

CONDULETS.

Condulets for Rigid Conduit (Continued).



Type C.

Type C Condulets.

Style of Cover.	For ½-Inch Conduit. No.	Std. Pkg.	Each.	For ¾-Inch Conduit. No.	Std. Pkg.	Each.
Blank metal	C-10	200	$ .44	C-20	100	$ .52
Porcelain, 1 wire	C-11	200	.46	C-21	100	.56
,, 2 ,,	C-12	200	.46	C-22	100	.56
,, 3 ,,	C-13	200	.46	C-23	100	.56
,, for W.P. socket	C-14	150	.52	C-24	100	.66
Metal, ⅛ male nipple	C-15	200	.56	C-25	100	.66
,, ⅛ female ,,	C-16	200	.56	C-26	100	.66
,, ⅜ male ,,	C-17	200	.61	C-27	100	.71
,, ⅜ female ,,	C-18	200	.61	C-28	100	.71
Porcelain, ⅛ male nipple,	C-19	200	.61	C-29	100	.71
,, ⅛ female ,,	C-110	200	.61	C-210	100	.71
,, ⅜ male ,,	C-111	200	.71	C-211	100	.82
,, ⅜ female ,,	C-112	200	.71	C-212	100	.82



Type D.

Type D Condulets.

Blank metal	D-10	200	$ .42	C-20	100	$ .52
Porcelain, 1 wire	D-11	200	.44	C-21	100	.56
,, 2 ,,	D-12	200	.44	C-22	100	.56
,, 3 ,,	D-13	200	.44	C-23	100	.56
,, for W.P. socket	D-14	150	.50	C-24	100	.66
Metal, ⅛ male nipple	D-15	200	.54	C-25	100	.66
,, ⅛ female ,,	D-16	200	.54	C-26	100	.66
,, ⅜ male ,,	D-17	200	.59	C-27	100	.71
,, ⅜ female ,,	D-18	200	.59	C-28	100	.71
Porcelain, ⅛ male nipple,	D-19	200	.59	C-29	100	.71
,, ⅛ female ,,	D-110	200	.59	C-210	100	.71
,, ⅜ male ,,	D-111	200	.69	C-211	100	.82
,, ⅜ female ,,	D-112	200	.69	C-212	100	.82



Type E.

Type E Condulets.

Blank metal	E-10	200	$ .37	E-20	100	$ .46
Porcelain, 1 wire	E-11	200	.39	E-21	100	.50
,, 2 ,,	E-12	200	.39	E-22	100	.50
,, 3 ,,	E-13	200	.39	E-23	100	.50
,, for W.P. socket	E-14	150	.45	E-24	100	.60
Metal, ⅛ male nipple	E-15	200	.49	E-25	100	.60
,, ⅛ female ,,	E-16	200	.49	E-26	100	.60
,, ⅜ male ,,	E-17	200	.54	E-27	100	.65
,, ⅜ female ,,	E-18	200	.54	E-28	100	.65
Porcelain, ⅛ male nipple,	E-19	200	.54	E-29	100	.65
,, ⅛ female ,,	E-110	200	.54	E-210	100	.65
,, ⅜ male ,,	E-111	200	.64	E-211	100	.76
,, ⅜ female ,,	E-112	200	.64	E-212	100	.76



Type F.

Type F Condulets.

Covers of all condulets of same size and type are interchangeable. Two- (2) and three- (3) wire type F condulets of same size may be assorted to make up standard package quantities.

Type F condulets may be placed in either a horizontal or vertical position.

Style of Cover.	For ½-Inch Conduit. No.	Std. Pkg.	Each.	For ¾-Inch Conduit. No.	Std. Pkg.	Each.
Porcelain 2 wire	F-12	100	$ .60	F-22	100	$ .80
,, 3 ,,	F-13	100	.60	F-23	100	.80



Type G.

Type G Condulets.

Prices do not include switches. Types G and H condulets are arranged with adjustable plate, making it possible to mount on same condulet any of the several styles of Diamond H, Hart and Perkins switches.

	For ½-Inch Conduit. No.	Std. Pkg.	Each.	For ¾-Inch Conduit. No.	Std. Pkg.	Each.
For 5-amp. switches	G-151	200	$ .55	G-252	100	$ .65
,, 10 ,, ,,	G-1101	150	.65	G-2102	100	.80
,, 20 ,, ,,	G-1201	100	.95	G-2202	75	1.10



Type H.

Type H Condulets.

For 5-amp. switches	H-15	200	$ .45	H-25	100	$ .55
,, 10 ,, ,,	H-110	150	.55	H-210	100	.70
,, 20 ,, ,,	H-120	100	.75	H-220	75	.95

CONDULETS.



Type J.



Type K.



Type LR.



Type LL.



Type M.



Type N.



Type O.



Type T.

Condulets for Rigid Conduit (Continued).

Type J Condulets. For ½-inch Conduit.	Complete Fitting. No.	Std. Pkg.	Each.	Conduit only. No.	Std. Pkg.	Each.
Conduit receptacle, Ed. base	J-1122	7	$1.00	J-11	200	$ .60
,, cord rosette	J-1133½	200	.90	J-11	200	.60
,, fixture rosette	J-1133⅛	200	.95	J-11	200	.60
For ¾-inch Conduit.						
Conduit receptacle, Ed. base	J-2222	7	$1.15	J-22	100	$ .75
,, cord rosette	J-2233½	100	1.05	J-22	100	.75
,, fixture rosette	J-2233⅛	100	1.10	J-22	100	.75
Type K Condulets.						
For ½-inch Conduit.						
Conduit receptacle, Ed. base	K-1227	200	$ .90	K-1	200	$ .50
,, cord rosette	K-133½	200	.80	K-1	200	.50
,, fixture rosette	K-133⅛	200	.85	K-1	200	.50
For ¾-inch Conduit.						
Conduit receptacle, Ed. base	K-2227	100	$1.05	K-2	100	$ .65
,, cord rosette	K-233½	100	.95	K-2	100	.65
,, fixture rosette	K-233⅛	100	1.00	K-2	100	.65

Type LR Condulets (Right Hand).

Style of Cover.	For ½-Inch Conduit. No.	Std. Pkg.	Each.	For ¾-Inch Cond. No.	Std. Pkg.	Each.
Blank metal	L-110R	150	$ .48	L-220R	75	$ .56
Porcelain, 1 wire	L-111R	150	.50	L-221R	75	.60
,, 2 ,,	L-112R	150	.50	L-222R	75	.60
,, 3 ,,	L-113R	150	.50	L-223R	75	.60
,, for W.P. socket	L-114R	150	.56	L-224R	75	.70
Metal, ⅛ male nipple	L-115R	150	.60	L-225R	75	.70
,, ⅛ female ,,	L-116R	150	.60	L-226R	75	.70
,, ¾ male ,,	L-117R	150	.65	L-227R	75	.75
,, ¾ female ,,	L-118R	150	.65	L-228R	75	.75
Porcelain, ⅛ male nipple,	L-119R	150	.65	L-229R	75	.75
,, ⅛ female ,,	L-1110R	150	.65	L-2210R	75	.75
,, ¾ male ,,	L-1111R	150	.75	L-2211R	75	.86
,, ¾ female ,,	L-1112R	150	.75	L-2212R	75	.86

Type LL Condulets (Left Hand).

Blank metal	L-110L	150	$ .48	L-220L	75	$ .56
Porcelain, 1 wire	L-111L	150	.50	L-221L	75	.60
,, 2 ,,	L-112L	150	.50	L-222L	75	.60
,, 3 ,,	L-113L	150	.50	L-223L	75	.60
,, for W.P. socket	L-114L	150	.56	L-224L	75	.70
Metal, ⅛ male nipple	L-115L	150	.60	L-225L	75	.70
,, ⅛ female ,,	L-116L	150	.60	L-226L	75	.70
,, ¾ male ,,	L-117L	150	.65	L-227L	75	.75
,, ¾ female ,,	L-118L	150	.65	L-228L	75	.75
Porcelain, ⅛ male nipple	L-119L	150	.65	L-229L	75	.75
,, ⅛ female ,,	L-1110L	150	.65	L-2210L	75	.75
,, ¾ male ,,	L-1111L	150	.75	L-2211L	75	.86
,, ¾ female ,,	L-1112L	150	.75	L-2212L	75	.86

Type M Condulets.

Types M, N, O condulets for combination conduit and moulding work.

	For ½-Inch Conduit. No.	Std. Pkg.	Each.
2-wire moulding	M-12	150	$ .75
3 ,, ,,	M-13	100	1.00

Type N Condulets.

2-wire moulding	N-12	150	$ .82
3 ,, ,,	N-13	100	1.10

Type O Condulets.

2-wire moulding	O-12	150	$ .92
3 ,, ,,	O-13	100	1.20

Type T Condulets.

Style of Cover.	For ½-Inch Conduit. No.	Std. Pkg.	Each.	For ¾-Inch Conduit. No.	Std. Pkg.	Each.
Blank metal	T-1110	150	$ .56	T-2220	75	$ .68
Porcelain, 1 wire	T-1111	150	.58	T-2221	75	.72
,, 2 ,,	T-1112	150	.58	T-2222	75	.72
,, 3 ,,	T-1113	150	.58	T-2223	75	.72
,, for W.P. socket	T-1114	150	.64	T-2224	75	.82
Metal, ⅛ male nipple	T-1115	150	.68	T-2225	75	.82

(Continued on next page.)

CONDULETS.

Condulets for Rigid Conduit (Continued).



Type TR.



Type TL.



Type U.



Type X.

Type T Condulets. Style of Cover.	For ½-Inch Conduit. No.	Std. Pkg.	Each.	For ¾-Inch Conduit. No.	Std. Pkg.	Each.
Metal, ⅛ female nipple	T-1116	150	$ .68	T-2226	75	$ .82
,, ⅜ male ,,	T-1117	150	.73	T-2227	75	.87
,, ⅜ female ,,	T-1118	150	.73	T-2228	75	.87
Porcelain, ⅛ male nipple	T-1119	150	.73	T-2229	75	.87
,, ⅛ female ,,	T-11110	150	.73	T-21210	75	.87
,, ⅜ male ,,	T-11111	150	.83	T-21211	75	.98
,, ⅜ female ,,	T-11112	150	.83	T-21212	75	.98
Type TR Condulets (Right Hand).						
Blank metal	T-1110R	100	$ .56	T-2220R	50	$ .68
Porcelain, 1 wire	T-1111R	100	.58	T-2221R	50	.72
,, 2 ,,	T-1112R	100	.58	T-2222R	50	.72
,, 3 ,,	T-1113R	100	.58	T-2223R	50	.72
,, for W.P. socket	T-1114R	100	.64	T-2224R	50	.82
Metal, ⅛ male nipple	T-1115R	100	.68	T-2225R	50	.82
,, ⅛ female ,,	T-1116R	100	.68	T-2226R	50	.82
,, ⅜ male ,,	T-1117R	100	.73	T-2227R	50	.87
,, ⅜ female ,,	T-1118R	100	.73	T-2228R	50	.87
Porcelain, ⅛ male nipple	T-1119R	100	.73	T-2229R	50	.87
,, ⅛ female ,,	T-11110R	100	.73	T-22210R	50	.87
,, ⅜ male ,,	T-11111R	100	.83	T-22211R	50	.98
,, ⅜ female ,,	T-11112R	100	.83	T-22212R	50	.98
Type TL Condulets (Left Hand).						
Blank metal	T-1110L	100	$ .56	T-2220L	50	$ .68
Porcelain, 1 wire	T-1111L	100	.58	T-2221L	50	.72
,, 2 ,,	T-1112L	100	.58	T-2222L	50	.72
,, 3 ,,	T-1113L	100	.58	T-2223L	50	.72
,, for W.P. socket	T-1114L	100	.64	T-2224L	50	.82
Metal, ⅛ male nipple	T-1115L	100	.68	T-2225L	50	.82
,, ⅛ female ,,	T-1116L	100	.68	T-2226L	50	.82
,, ⅜ male ,,	T-1117L	100	.73	T-2227L	50	.87
,, ⅜ female ,,	T-1118L	100	.73	T-2228L	50	.87
Porcelain, ⅛ male nipple	T-1119L	100	.73	T-2229L	50	.87
,, ⅛ female ,,	T-11110L	100	.73	T-22210L	50	.87
,, ⅜ male ,,	T-11111L	100	.83	T-22211L	50	.98
,, ⅜ female ,,	T-11112L	100	.83	T-22212L	50	.98
Type U Condulets.						
Blank metal	U-110	100	$ .60	U-220	50	$ .68
Porcelain, 1 wire	U-111	100	.62	U-221	50	.72
,, 2 ,,	U-112	100	.62	U-222	50	.72
,, 3 ,,	U-113	100	.62	U-223	50	.72
,, for W.P. socket	U-114	100	.68	U-224	50	.82
Metal, ⅛ male nipple	U-115	100	.72	U-225	50	.82
,, ⅛ female ,,	U-116	100	.72	U-226	50	.82
,, ⅜ male ,,	U-117	100	.77	U-227	50	.87
,, ⅜ female ,,	U-118	100	.77	U-228	50	.87
Porcelain, ⅛ male nipple	U-119	100	.77	U-229	50	.87
,, ⅛ female ,,	U-1110	100	.77	U-2210	50	.87
,, ⅜ male ,,	U-1111	100	.87	U-2211	50	.98
,, ⅜ female ,,	U-1112	100	.87	U-2212	50	.98
Type X Condulets.						
Blank metal	X-11110	150	$ .68	X-22220	75	$ .88
Porcelain, 1 wire	X-11111	150	.70	X-22221	75	.92
,, 2 ,,	X-11112	150	.70	X-22222	75	.92
,, 3 ,,	X-11113	150	.70	X-22223	75	.92
,, for W.P. socket	X-11114	150	.76	X-22224	75	1.02
Metal, ⅛ male nipple	X-11115	150	.80	X-22225	75	1.02
,, ⅛ female ,,	X-11116	150	.80	X-22226	75	1.02
,, ⅜ male ,,	X-11117	150	.85	X-22227	75	1.07
,, ⅜ female ,,	X-11118	150	.85	X-22228	75	1.07
Porcelain, ⅛ male nipple	X-111119	150	.85	X-22229	75	1.07
,, ⅛ female ,,	X-111110	150	.85	X-222210	75	1.07
,, ⅜ male ,,	X-111111	150	.95	X-222211	75	1.18
,, ⅜ female ,,	X-111112	150	.95	X-222212	75	1.18



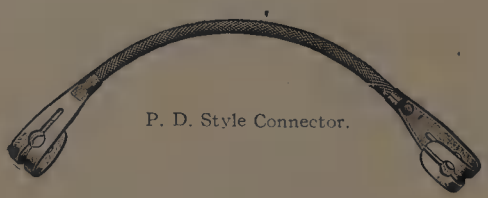
Thumbscrew Connector.



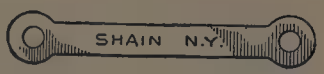
" Bull Dog " Connector.



Regular Flexible Connector. Eastern Connector.



P. D. Style Connector.



Strip Connector.



Solid T Connector.



Split T Connector

CONNECTOR Insulators (see Insulators).

CONNECTORS, see following headings:

Connectors, Automobile (see Terminals).
,, Battery.
,, Bell Cord (see Couplers).
,, Bus Bar.
,, Cable (see Connectors, Dossert).
,, Dossert.
,, Heater.
,, McIntire.
,, Splicing (see Splicers).
,, Theatre or Stage.
,, Trailer.
,, Triton (see Couplers).
,, Wire.

CONNECTORS, Automobile (see Terminals).

CONNECTORS, Battery.

Thumbscrew Battery Connectors (No. S-1149).

A straight wire connector with thumbscrews for easy connecting.

Thumbscrew battery connector ....each, $ .10

Flexible Battery Connectors.

Consisting of two-wire terminals with a flexible cord, especially adapted for the easy connection of dry batteries.

No. S-1150. " Regular " style, with copper terminals.....per 100, $4.00
No. S-1151. " Eastern " style, with rubber buffers.....per 100, 6.00
No. S-1152. Ever-Ready " Bull Dog " style, with adjustable clip ends.....per 100, 10.00
No. S-1153. P. D. style, with spring nut check terminals; unnecessary to remove nut, per 100, 6.00

Strip Connectors.

A one-piece punching from strip copper with terminals formed on ends.

No. S-1154. Strip connectors....per 100, $1.00

CONNECTORS, Bell Cord (see Couplers).

CONNECTORS, Bus Bar.

Hill's Bus Bar Connectors.

In ordering specify size of wire to be used in main and branches and state whether solid or stranded.

Solid T.

	Main	Branch.	
No. 41363	$\frac{1}{4}$	$\frac{1}{4}$ or less....each,	$ .40
,, 41364	$\frac{3}{8}$	$\frac{3}{8}$,, ,, ... ,,	.60
,, 41365	$\frac{1}{2}$	$\frac{1}{2}$,, ,, ... ,,	.85
,, 41366	$\frac{5}{8}$	$\frac{5}{8}$,, ,, ... ,,	1.00
,, 41367	$\frac{3}{4}$	$\frac{3}{4}$,, ,, ... ,,	1.30
,, 41368	1	1 ,, ,, ... ,,	1.55
,, 41369	$1\frac{1}{4}$	$1\frac{1}{4}$,, ,, ... ,,	2.10
,, 41370	$1\frac{1}{2}$	$1\frac{1}{2}$,, ,, ... ,,	3.10

Split T.

No. 41371	$\frac{1}{4}$	$\frac{1}{4}$ or less....each,	$ .50
,, 41372	$\frac{3}{8}$	$\frac{3}{8}$,, ,, ... ,,	.75
,, 41373	$\frac{1}{2}$	$\frac{1}{2}$,, ,, ... ,,	1.00
,, 41374	$\frac{5}{8}$	$\frac{5}{8}$,, ,, ... ,,	1.30
,, 41375	$\frac{3}{4}$	$\frac{3}{4}$,, ,, ... ,,	1.55
,, 41376	1	1 ,, ,, ... ,,	1.90
,, 41377	$1\frac{1}{4}$	$1\frac{1}{4}$,, ,, ... ,,	2.50
,, 41378	$1\frac{1}{2}$	$1\frac{1}{2}$,, ,, ... ,,	3.75

CONNECTORS, Cable (see Dossert connectors).



Type A for Solid Wires.



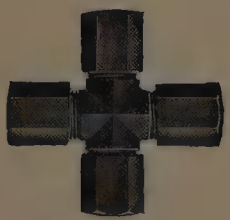
Type B for Stranded Cables.



Type C Dossert Joints.



Three-Way.



Four-Way.



Y Connector.



Special Switchboard Lug.



Terminal Lug.



Main.

Branch.

Cable Tap.



Special Fuse Box Plug.

CONNECTORS, Dossert.

Dossert Wire and Cable Connectors.

Type A.

For solid wires. Composed of one nipple, two split double cone sleeves and two compression nuts. While designed for solid wires can readily be applied to stranded cables where no great amount of tensile strength is required.

Type B.

For stranded cables. Composed of one nipple, two outside rings, two inside rings, and two compression nuts. By the use of the rings, a hump is formed on the outside layer of strands. (See cut.)

Type C.

Type C is made with a round nipple and round nuts — in types A and B. It is used for high tension work.

When requested, we make the nipple of pure copper at an additional cost of 25 per cent.

Three-Way.

Furnished in either type A or B as desired, all outlets to accommodate one size of wire or any three different sizes if required.

Four-Way.

Furnished in either type A or B as desired. All outlets to accommodate one size of wire or any four sizes if required.

Y.

Furnished in either type A or B as desired. All outlets to accommodate one size of wire or any three sizes if required.

Special Switchboard Lug.

Furnished in either type A or B to accommodate all sizes of wires and cables. Made in pairs, all faces machined. By turning on the switch stud, allows the wires to be brought to the board from different directions.

Terminal Lug.

Furnished in either type A or type B to accommodate all sizes of wires and cables. With any size face desired.

Cable Tap.

Fills a long felt want for a connector to make quick taps, especially in high tension work where the circuit is "live." Composed of very few pieces. Furnished with the "bleeder" to accommodate either solid wire or stranded cable, made to tap from any sized "Main" to any sized "Branch."

Fuse Box Plug.

This is made only in Type A.

By means of the sleeving device it can be quickly and easily connected to any sized wire. Especially valuable in repair and construction work.

CONNECTORS, Dossert.



Angle Lug.

Dossert Wire and Cable Connectors (Continued).

Size of Cable.	2-Way.	3-Way Cable Tap. Y.	4-Way.	Standard Lug.
14 to 4	$ .40	$ .60	$ .80	$ .30
3 ,, 1	.50	.75	1.00	.38
0	.60	.90	1.20	.45
00	.74	1.11	1.48	.56
000	.90	1.35	1.80	.68
0000	1.10	1.65	2.20	.83
250,000	1.30	1.95	2.60	.98
300,000	1.52	2.28	3.04	1.14
350,000	1.74	2.61	3.48	1.31
400,000	2.00	3.00	4.00	1.50
450,000	2.30	3.45	4.60	1.73
500,000	2.60	3.90	5.20	1.95
550,000	2.90	4.35	5.80	2.18
600,000	3.18	4.77	6.36	2.39
650,000	3.44	5.16	6.88	2.58
700,000	3.68	5.52	7.36	2.76
750,000	3.92	5.88	7.84	2.94
800,000	4.16	6.22	8.32	3.11
850,000	4.40	6.60	8.80	3.30
900,000	4.64	6.96	9.28	3.48
1,000,000	5.00	7.50	10.00	3.75
1,100,000	5.50	8.25	11.00	4.13
1,200,000	6.00	9.00	12.00	4.50
1,300,000	6.50	9.75	13.00	4.88
1,400,000	7.00	10.50	14.00	5.25
1,500,000	7.50	11.25	15.00	5.63
1,600,000	8.00	12.00	16.00	6.00
1,700,000	8.50	12.75	17.00	6.38
1,800,000	9.00	13.50	18.00	6.75
1,900,000	9.50	14.25	19.00	7.13
2,000,000	10.00	15.00	20.00	7.50

To determine the list price of a cable tap of an odd size: Add the list price of the two-way connector for the cable to half the list price of the bleeder.



Cable





Bleeder.

Example 1. Cable 500,000. Bleeder No. 0000.

500,000 2-way	$2.60
One half No. 0000 2-way	.55
List price	$3.15

Example 2. Cable No. 0000. Bleeder 500,000.

No. 0000 2-way	$1.10
One half 500,000 2-way	1.30
List price	$2.40

Example 3. To determine the list price of a Y connector with unequal branches. Two branches No. 0. One branch No. 0000.

One 2-way No. 0	$ .60
One half 2-way No. 0000	.55
List price	$1.15

CONNECTORS, Heater.

Simplex Heater Connectors.

These are separable switches for use with flexible conductor for disconnecting near a heater and also for changing circuit combinations. Three-way connectors are used on all these heat immersion coils up to 12 amperes.



No. 912.

No. 917.	Two-way, for duplex cord only, 3 amps.....each,	$1.00
,, 918.	Three-way, for three conductors, 3 amps..... ,,	1.25
,, 911.	Two-way, for duplex cord only, 12 amps..... ,,	1.25
,, 912.	Three-way, for 3 conductors, 12 amps..... ,,	1.50

CONNECTORS, McIntire.

McIntire Connectors S-1155.

Price per 100.

Regular.	Twist Connector for Electric Light Wire.	Compressed Connectors.	Hard Drawn Copper Wire.
1 B. & S. gauge	$15.00		
2 ,, ,,	12.00		
3 ,, ,,	10.00		
4 ,, ,,	9.00		
5 ,, ,,	8.00		
6 ,, ,,	8.00		$11.50
7 ,, ,,	6.00		10.50
8 ,, ,,	5.50		9.50
9 ,, ,,	5.00		8.50
10 ,, ,,	4.50		7.00
11 ,, ,,	4.00		7.00
12 ,, ,,	4.00	$4.00	7.00
13 ,, ,,	3.50	3.50	7.00
14 ,, ,,	3.50	3.50	7.00
15 ,, ,,	3.50	3.50	6.00
16 ,, ,,	2.50	2.50	6.00
17 ,, ,,	2.50	2.50	
18 ,, ,,	2.50	2.50	
19 ,, ,,	1.50	1.50	
20 ,, ,,	1.50	1.50	

Solder and Rivet H-1155.

0000 B. & S. gauge, solder and rivet connectors	$25.00
000 ,, ,, ,, ,, ,, ,,	25.00
00 ,, ,, ,, ,, ,, ,,	25.00
0 ,, ,, ,, ,, ,, ,,	20.00

Combination H-1156.

No. 8 to 10 combination connectors	$5.50
,, 8 ,, 12 ,, ,,	5.50
,, 8 ,, 14 ,, ,,	5.50
,, 10 ,, 18 ,, ,,	4.50
,, 14 ,, 18 ,, ,,	3.50
,, 16 ,, 18 ,, ,,	2.50

(For tools for McIntire connectors, see Clamps.)

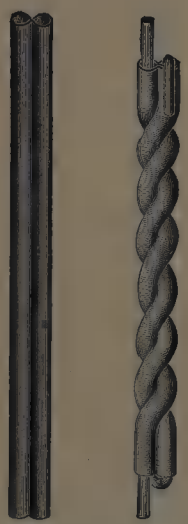
Improved American Connectors.

For Copper Wire S-1156.

No. 18. B. & S. gauge	per 100,	$5.00
,, 16. ,, ,,	,,	5.00
,, 14. ,, ,,	,,	5.50
,, 12. ,, ,,	,,	6.00
,, 10. ,, ,,	,,	6.50
,, 9. ,, ,,	,,	7.00
,, 8. ,, ,,	,,	7.50
,, 7. ,, ,,	,,	8.00
,, 6. ,, ,,	,,	9.00

For Iron Wire S-1157.

No. 14. B. W. gauge	per 100,	$5.50
,, 12. ,, ,,	,,	5.50
,, 10. ,, ,,	,,	5.50



American Connector before Twisting. American Joint Complete.

CONNECTORS, Splicing (see Splicers).

CONNECTORS, Theatre (see Plugs, attachment).

Mesco Theatre Connectors.

These connectors are very convenient for connections that have to be made and unmade frequently and rapidly and are therefore well adapted for theatrical work, storage battery connections, trailer light coupling, and for large chandeliers in churches and theatres.

The No. 6534 is in accordance with underwriters' requirements.

No. 6534. Theatre connectors, 25 amps., 125 volts	each,	$1.50
,, 6535. Medium size, 15 amps.	,,	1.00
,, 6536. Small size for light work	,,	.70



No. 6536.



Riblett Connector.

CONNECTORS, Theatre (Continued).

Riblett Connector.

An improved form of theatre or stage connector. The connector is so shaped with pistol grip that the outer edge is thicker than the central portion and is easily grasped by the fingers. Extra heavy metal parts, large threaded surface to prevent stripping. A hole in each half permits of the cord being tied to prevent undue strain on the binding screws. Capacity up to 25 amperes.

No. H-1158. Riblett connector.....each, $1.00

CONNECTORS, Trailer.

Trailer Connectors.

Wood's trailer connector is a single pole, hard rubber connector for carrying the lighting circuit only, from the motor car to the trailer. It is not made double pole, but has two contact pins making it double break.

No. S-1158. Trailer connector.....each, $1.00



Wood's Trailer Connector.

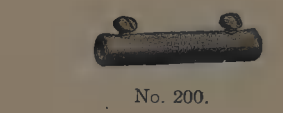
CONNECTORS, Triton (see Couplers).

CONNECTORS, Wire.

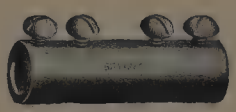
Straight Wire Connectors.

		Std. Pkg.	Each.
With Two Set Screws.			
No. 200.	For Nos. 12 and 14 wire, $\frac{1}{16}$-in. hole..	100	$ .05
,, 201.	,, ,, 10 ,, 8 ,, $\frac{5}{32}$,, ,, ..	100	.06
,, 202.	,, ,, 6 ,, 7 ,, $\frac{3}{16}$,, ,, ..	100	.07
,, 203.	,, ,, 4 ,, 5 ,, $\frac{7}{32}$,, ,, ..	100	.08
,, 204.	,, ,, 2 ,, 3 ,, $\frac{9}{32}$,, ,, ..	100	.10
,, 205.	,, ,, 0 ,, 1 ,, $\frac{11}{32}$,, ,, ..	50	.12
,, 206.	,, ,, 00 wire $\frac{3}{8}$,, ,, ..	50	.14
With Four Set Screws.			
No. 207.	For Nos. 4 and 5 wire, $\frac{7}{32}$-in. hole...	100	$ .09
,, 208.	,, ,, 2 ,, 3 ,, $\frac{9}{32}$,, ,, ...	100	.11
,, 209.	,, ,, 0 ,, 1 ,, $\frac{11}{32}$,, ,, ...	50	.13
,, 210.	,, ,, 00 wire, $\frac{3}{8}$,, ,, ...	50	.15
,, 211.	,, ,, 000 wire.....	50	.22
,, 212.	,, ,, 0000 wire.....	50	.28
Brooklyn Connectors.			
No. 310.	$\frac{1}{4}$ in. both ends for No. 6 wire.....	50	$ .11
,, 311.	One end $\frac{9}{64}$ in. for No. 4 wire; other end $\frac{1}{4}$ in. for No. 6 wire.....	50	.12
No. 312.	$\frac{9}{64}$ in. both ends for No. 4 wire.....	50	.12

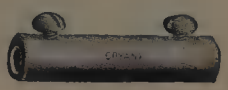
In the Brooklyn connector a dividing wall prevents melted solder from running through.



No. 200.



No. 207.

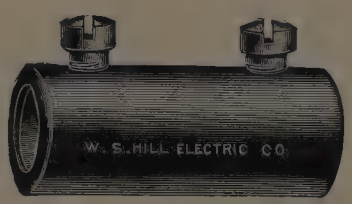


No. 310.

Hill's Extra Heavy Straight Connectors.

Two Screws. No.	Std. Pkg.	Outside Diam.	Dia. Wire Hole.	Size Wire.	Price per 100.
41831	100	$\frac{1}{4}$ in.	* $\frac{3}{32}$	No. 12 and 14 wire	$5.85
41832	100	$\frac{5}{16}$,,	* $\frac{9}{64}$	,, 8 ,, 10 ,,	6.65
41833	100	$\frac{3}{8}$,,	* $\frac{11}{64}$	,, 6 wire,	7.40
41834	100	$\frac{7}{16}$,,	* $\frac{7}{32}$	,, 4 ,,	8.60
41835	100	$\frac{1}{2}$,,	* $\frac{17}{64}$	,, 2 ,,	11.70
41836	50	$\frac{9}{16}$,,	* $\frac{11}{32}$	,, 1–0 wire,	12.90
41837	50	$\frac{5}{8}$,,	* $\frac{3}{8}$	,, 2–0 ,,	14.00
Four Screws.					
41838	50	$\frac{9}{16}$ in.	* $\frac{11}{32}$	No. 1–0 wire	$20.00
41839	50	$\frac{5}{8}$,,	* $\frac{3}{8}$	,, 2–0 ,,	22.50
41840	00	$\frac{3}{4}$,,	$\frac{31}{64}$	,, 3–0 ,,	30.00
41841	00	$\frac{7}{8}$,,	$\frac{17}{32}$	,, 4–0 ,,	40.00
41842	00	1 ,,	$\frac{41}{64}$	300000 cm.	50.00
41843	00	$1\frac{1}{8}$,,	$\frac{49}{64}$	400000 ,,	60.00
41844	00	$1\frac{1}{2}$,,	1	600000 ,,	90.00

* Sizes for Solid Wire.



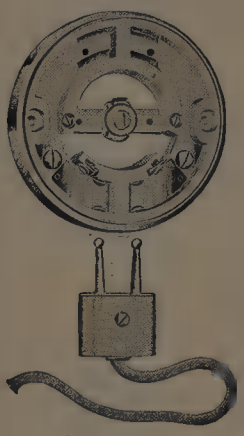
Two-Screw Connector.



Four-Screw Connector,

Broken packages, 20 per cent extra.

Connectors will be drilled for stranded wire when so specified, without extra charge.



Connecttome.

CONNECTTOMES.

Dale's Connecttome

Permits connection of a portable lamp, fan motor, or curling iron at the canopy. Can be fastened to the wall or outlet box.

Made for straight electric or combination brackets for single or double connection, furnished in any finish, and fits a 4-inch canopy.

No. S-1159. For single connection	each,	$2.25
,, S-1160. For double connection	,,	3.30
,, S-1161. Plug only	,,	.80

CONTACT Fingers (see F).
CONTROLLERS, Motor Speed (see Rheostats).
CONTROLLER Parts (see Fingers).

Prices on application. State make and Catalogue No. of parts desired.

COOKER, Cereal (see Boiler).
COOKER, Griddle Cake (see Broilers).
COPPERS, Battery (see Batteries).
COOKING Utensils (see Dishes, Pans, Pots, Kettles, Spoons, Tables, etc.)
COPPERS, Gravity.

Gravity Battery Coppers (see Batteries).

No. S-557. Gravity battery copper for 6 x 8 in. jar, complete with wire terminal	each,	$ .20
No. S-561. Gravity battery copper for 5 x 7 in. jar, complete with wire terminal	each,	.20
No. 16B. Strip copper with wire terminal	,,	.24



No. S-557.

COPPERS, Soldering.

Soldering Coppers.

Straight soldering coppers with pointed ends.

No. S-1162. $\frac{1}{8}$ lb.	per doz.,	$3.50
,, S-1163. $\frac{1}{4}$,,	,,	4.00
,, S-1164. 6 oz.	,,	4.50
,, S-1165. $\frac{1}{2}$ lb.	,,	5.00
,, S-1166. $\frac{3}{4}$,,	,,	6.00
,, S-1167. 2 ,, (in pairs, 1 lb. each)	per lb.,	.62
,, S-1168. 4 ,, (,, ,, 2 ,, ,,)	,,	.62
,, S-1169. 6 ,, (,, ,, 3 ,, ,,)	,,	.62



Pointed Copper.



Grooved Copper.

Grooved Soldering Coppers.

No. 16762. Soldering copper for line work, weight, 6 lbs		$5.00

CORD Adjusters (see Adjusters, Holders, and Handles).
CORDAGE (see Rope).
CORD, see following headings:

Cord, Arc Lamp (see Cord, trolley).
,, Bell.
,, Bracket (see Trimmings, car).
,, Brewery.
,, Canvasite.
,, Circular Loom Covered.
,, Coupler (see Coupler).
,, Heater (see Conductor, flexible).
,, Lamp and Window.
,, Packing House.
,, Plate (see Trimmings, car).
,, Pulley (see Trimmings, car).
,, Railroad Bell (see Cord, trolley).
,, Reënforced (see Cord, lamp, and Conductor, flexible).
,, Show Window (see Cord, lamp).
,, Signal (see Cord, trolley).
,, Spools (see Adjusters).
,, Stop (see Trimmings, car).
,, Telephone.
,, Thimble (see Trimmings, car).
,, Tinsel.
,, Tips (see T).
,, Trolley.

CORD, Arc Lamp (see Cord, trolley).
CORD, Bell.

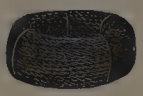


Leather Bell Cord.

Leather Bell Cord.

No. S-1170	$\frac{1}{8}$ in.	per 1,000 ft.,	$18.00
,, S-1171	$\frac{3}{16}$,,	,,	20.00
,, S-1172	$\frac{7}{32}$,,	,,	22.00
,, S-1173	$\frac{1}{4}$,, regular	,,	26.00
,, S-1174	$\frac{1}{4}$,, full	,,	28.00
,, S-1175	$\frac{9}{32}$,,	,,	36.00
,, S-1176	$\frac{5}{16}$,, regular	,,	44.00
,, S-1177	$\frac{5}{16}$,, full	,,	52.00
,, S-1178	$\frac{3}{8}$,, regular	,,	80.00
,, S-1179	$\frac{3}{8}$,, full	,,	100.00

CORD, Bell (Continued).



Bell Cord.

Silk Covered Bell Cord (see Cord, tinsel).

Looks like lamp cord but has no rubber insulation and cannot therefore be used for electric lighting purposes.

It is more flexible than lamp cord and is suitable for table pushes, drop bell cords, medical batteries, etc.

Composed of 14 No. 34 copper wires in each of the two conductors and furnished in plain colors, maroon, red, blue, green, etc.

No. S-1180. Silk bell cord.....per yd., $ .12

CORD Bracket (see Trimmings, car).

CORD, Brewery.

Brewery Cord No. S-1181.

Twin conductors of stranded copper wire, each rubber covered and heavily braided. For use in damp places. Prices per 1,000 feet.

Bars.

Size B. & S.	15c.	16c.	17c.	18c.	19c.	20c.	21c.	22c.
10	$82.80	$84.40	$85.80	$87.40	$89.00	$90.40	$92.00	$93.40
12	63.70	64.60	65.80	66.70	67.60	68.50	69.50	70.40
14	49.90	50.60	51.10	51.50	52.40	52.90	53.60	54.10
16	42.60	43.00	43.50	43.70	44.20	44.40	44.90	45.30
18	35.70	35.90	36.10	36.30	36.60	36.80	37.00	37.30

Size B. & S.	23c.	24c.	25c.	26c.	27c.	28c.	29c.	30c.
10	$95.00	$96.40	$98.00	$99.60	$101.00	$102.60	$104.20	$105.60
12	71.50	72.50	73.40	74.30	75.40	76.40	77.30	78.20
14	54.70	55.20	55.90	56.60	57.00	57.50	58.40	58.90
16	45.50	46.00	46.20	46.70	47.20	47.40	47.80	48.10
18	37.50	37.70	38.00	38.20	38.40	38.60	38.90	39.10

CORD, Canvasite.

Canvasite Cord No. S-1182.

Similar to the brewery cord but with a very heavy braid over the two wires in addition to the regular insulation. Prices per 1,000 feet.

Bars.

Size. B & S.	15c.	16c.	17c.	18c.	19c.	20c.	21c.	22c.
10	$107.50	$109.30	$110.80	$112.50	$114.30	$115.80	$117.50	$119.00
12	84.30	85.30	86.50	87.50	88.50	89.50	90.50	91.50
14	66.80	67.50	68.00	68.50	69.50	70.00	70.80	71.30
16	56.30	56.80	57.30	57.50	58.00	58.30	58.80	59.30
18	48.30	48.50	48.80	49.00	49.30	49.50	49.80	50.00

Size B. & S.	23c.	24c.	25c.	26c.	27c.	28c.	29c.	30c.
10	$120.80	$122.30	$124.00	$125.80	$127.30	$129.00	$130.80	$132.30
12	92.80	93.80	94.80	95.80	97.00	98.00	99.00	100.00
14	72.00	72.50	73.30	74.00	74.50	75.00	76.00	76.50
16	59.50	60.00	60.30	60.80	61.30	61.50	62.00	62.30
18	50.30	50.50	50.80	51.00	51.30	51.50	51.80	52.00

CORD, Circular Loom Covered.

Circular Loom Covered Cord No. S-1183.

For use in places requiring an extra tough outer covering to stand abrasion. The cord has a woven covering similar to that used on circular loom conduit.

No. 14. Circular loom cord.....per ft., $ .10
,, 16. ,, ,, ,, ... ,, .08
,, 18. ,, ,, ,, ... ,, .07

CORD Coupler (see Coupler)

CORD, Heater (see Conductor, flexible).

CORD, Lamp and Window.

Lamp and Show Window Cord.

Furnished regularly in green and yellow mixed. Other colors: plain green, maroon, old English, brass, white, Pompeiian, etc., in silk No. 18 only.

In cotton,— green and yellow mixed only.

Prices per 1,000 feet.



Lamp Cord.

Lamp Cord No. S-1184.

Bars.

Size	15-cent Bars.		16-cent Bars.		17-cent Bars.		18-cent Bars.	
B. & S.	Silk Cov.	Cot. Cov.	Silk Cov.	Cot. Cov.	Silk Cov.	Cot. Cov.	Silk Cov.	Cot. Cov.
10	$150.00	$118.80	$153.30	$122.00	$156.50	$125.30	$160.00	$128.80
12	100.00	77.50	102.00	79.50	104.30	81.80	106.30	83.80
14	71.30	50.00	72.50	51.30	73.80	52.50	75.30	54.00
16	63.30	33.80	52.30	34.80	51.10	34.20	53.80	36.30
18	42.50	26.30	43.00	26.80	43.50	27.20	44.00	27.80
20	36.30	22.50	36.80	23.00	37.00	23.30	37.30	23.50
22	32.50	18.80	32.80	19.00	33.00	19.30	33.30	19.50

Size	19-cent Bars.		20-cent Bars.		21-cent Bars.		22-cent Bars.	
B. & S.	Silk Cov.	Cot. Cov.	Silk Cov.	Cot. Cov.	Silk Cov.	Cot. Cov.	Silk Cov.	Cot. Cov.
10	$163.30	$132.00	$166.50	$135.30	$169.80	$138.50	$173.00	$141.80
12	108.40	86.00	110.50	88.00	112.50	90.00	114.80	92.30
14	76.30	55.00	77.80	56.50	79.00	57.80	80.30	58.80
16	54.50	37.00	55.30	37.80	56.30	38.80	57.00	39.50
18	44.50	28.30	45.00	28.80	45.50	29.30	46.00	29.80
20	37.50	23.80	38.00	24.30	38.50	24.80	38.80	25.00
22	33.50	19.80	33.50	19.80	33.80	20.00	34.00	20.30

Size	23-cent Bars.		24-cent Bars.		25-cent Bars.	
B. & S.	Silk Cov.	Cot. Cov.	Silk Cov.	Cot. Cov.	Silk Cov.	Cot. Cov.
10	$176.50	$145.30	$179.80	$148.50	$183.00	$151.80
12	116.80	94.30	119.00	96.50	121.00	98.50
14	81.80	60.50	82.80	61.50	84.30	63.00
16	57.80	40.30	58.50	41.00	59.30	41.80
18	46.50	30.30	47.00	30.80	47.50	31.30
20	39.00	25.30	39.30	25.50	39.80	26.00
22	34.30	20.50	34.50	20.80	34.50	20.80

Size	26-cent Bars.		27-cent Bars.		28-cent Bars.	
B. & S.	Silk Cov.	Cot. Cov.	Silk Cov.	Cot. Cov.	Silk Cov.	Cot. Cov.
10	$186.30	$155.00	$189.50	$158.30	$193.00	$161.80
12	123.00	100.50	125.30	102.80	127.30	104.80
14	85.50	64.30	86.80	65.50	88.30	67.00
16	60.30	42.80	61.00	43.50	61.80	44.30
18	48.00	31.80	48.50	32.30	49.00	32.80
20	40.30	26.50	40.50	26.80	40.80	27.00
22	34.80	21.00	35.00	21.30	35.30	21.50

Show Window Cord No. S-1185.

Bars.

Size	15-cent Bars.		16-cent Bars.		17-cent Bars.		18-cent Bars.	
B. & S.	Silk Cov.	Cot. Cov. Dry or Slk'd.	Silk Cov.	Cot. Cov. Dry or Slk'd.	Silk Cov.	Cot. Cov. Dry or Slk'd.	Silk Cov.	Cot. Cov. Dry or Slk'd.
10	$212.50	$150.00	$215.80	$153.30	$219.00	$156.50	$222.50	$160.00
12	162.50	112.50	164.50	114.50	166.80	116.80	168.80	118.80
14	122.50	81.30	123.80	82.50	125.00	83.80	126.50	85.30
16	95.00	65.00	96.00	66.00	96.80	66.80	97.50	67.50
18	81.30	53.80	81.80	54.30	82.30	54.80	82.80	55.30
20	71.30	46.30	71.80	46.80	72.00	47.00	72.30	47.30
22	65.00	43.80	65.30	44.00	65.50	44.30	65.80	44.50

Size	19-cent Bars.		20-cent Bars.		21-cent Bars.		22-cent Bars.	
B. & S.	Silk Cov.	Cot. Cov. Dry or Slk'd.	Silk Cov.	Cot. Cov. Dry or Slk'd.	Silk Cov.	Cot. Cov. Dry or Slk'd.	Silk Cov.	Cot. Cov. Dry or Slk'd.
10	$225.80	$163.60	$229.00	$166.50	$232.30	$169.80	$235.50	$173.00
12	171.00	121.00	173.00	123.00	175.00	125.00	177.30	127.30
14	127.50	86.30	129.00	87.80	130.30	89.00	131.50	90.30
16	98.30	68.30	99.00	69.00	100.00	70.00	100.80	70.80
18	83.30	55.80	83.80	56.30	84.30	56.80	84.80	57.30
20	72.50	47.50	73.00	48.00	73.50	48.50	73.80	48.80
22	66.00	44.80	66.00	44.80	66.30	45.00	66.50	45.30

(*Continued on next page.*)

CORD, Lamp and Window.

Lamp and Show Window Cord (Continued).

Show Window Cord No. S-1185

Bars.

Size B. & S.	23-cent Bars. Silk Cov.	23-cent Bars. Cot. Cov. Dry or Slk'd.	24-cent Bars. Silk Cov.	24-cent Bars. Cot. Cov. Dry or Slk'd.	25-cent Bars. Silk Cov.	25-cent Bars. Cot. Cov. Dry or Slk'd.
10	$239.00	$176.50	$242.30	$179.80	$245.50	$183.00
12	179.30	129.30	181.50	131.50	183.50	133.50
14	133.00	91.80	134.00	92.80	135.50	94.30
16	101.50	71.50	102.30	72.30	103.00	73.00
18	85.30	57.80	85.80	58.30	86.30	58.80
20	74.00	49.00	74.30	49.30	74.80	49.80
22	66.80	45.50	67.00	45.80	67.00	45.80

Size B. & S.	26-cent Bars. Silk Cov.	26-cent Bars. Cot. Cov. Dry or Slk'd.	27-cent Bars. Silk Cov.	27-cent Bars. Cot. Cov. Dry or Slk'd.	28-cent Bars. Silk Cov.	28-cent Bars. Cot. Cov. Dry or Slk'd.
10	$248.80	$186.30	$252.00	$189.50	$255.50	$193.00
12	185.50	135.50	187.80	137.80	189.80	139.80
14	136.80	95.50	138.00	96.80	139.50	98.30
16	104.00	74.00	104.80	74.80	105.50	75.50
18	86.80	59.30	87.30	59.80	87.80	60.30
20	75.30	50.30	75.50	50.50	75.80	50.80
22	67.30	46.00	67.50	46.30	67.80	46.50

CORD, Packing House.

Packing House Cord No. S-1186.

Two flexible rubber-covered wires with filler to make a round cord, covered with a heavy braid.

Bars.

Size B. & S.	15c.	16c.	17c.	18c.	19c.	20c.	21c.	22c.
10	$125.00	$126.80	$128.30	$130.00	$131.80	$133.30	$135.00	$136.50
12	99.30	100.30	101.50	102.50	103.50	104.50	105.50	106.50
14	79.30	80.00	80.50	81.00	82.00	82.50	83.30	83.80
16	66.30	66.80	67.30	67.50	68.00	68.30	68.80	69.30
18	57.80	58.00	58.30	58.50	58.80	59.00	59.30	59.50

Bars.

Size B. & S.	23c.	24c.	25c.	26c.	27c.	28c.	29c.	30c.
10	$138.30	$139.80	$141.50	$143.30	$144.80	$146.50	$148.30	$149.80
12	107.80	108.80	109.80	110.80	112.00	113.00	114.00	115.00
14	84.50	85.00	85.80	86.50	87.00	87.50	88.50	89.00
16	69.50	70.00	70.30	70.80	71.30	71.50	72.00	72.30
18	59.80	60.00	60.30	60.50	60.80	61.00	61.30	61.50

CORD Plate (see Trimmings, car).

CORD, Pulley (see Trimmings, car).

CORD, Railroad Bell (see Cord, trolley).

CORD, Re-enforced (see Cord, lamp, and Conductor, flexible).

CORD, Show Window (see Cord, lamp).

CORD Signal (see Cord, trolley).

CORD Spools (see Adjusters).

CORD Stop (see Trimmings, car).

CORD, Telephone.

Telephone Cord.



Receiver and Cord.

Telephone Receiver Cords.

Worsted telephone receiver cords with tips are sent unless silk are specified.

			Worsted.	Silk.
No. S-1187	2-ft.	cord, each,	$ .20	$ .32
,, S-1188	2½ ,,	,, ,,	.23	.38
,, S-1189	3 ,,	,, ,,	.25	.44

Special cords of all lengths and styles furnished to order at short notice.

Linen Braided Spiral Switchboard Cord No. S-1190.

The most efficient and durable cord of this type upon the market.

It is made in single, double, or triple conductor, the conductors being composed of tinsel, insulated with a wind and braid of fine cotton. They are encased in spiraled brass wire and heavily braided with polished linen thread of any desired standard color; white, red, or brown being more commonly used. The plug end of cord has a reënforcing braid and the ends are properly tipped for connecting to plug and board.

CORD, Telephone.

Telephone Cord (Continued).

Linen Braided Spiral Switchboard Cord No. S-1190.

Length.	Single Conductor.	Double Conductor.	Triple Conductor.
3 ft.	$ .24 each	$ .34 each	$ .41 each
3½ ,,	.27 ,,	.38 ,,	.46 ,,
4 ,,	.31 ,,	.43 ,,	.51 ,,
4½ ,,	.34 ,,	.47 ,,	.56 ,,
5 ,,	.37 ,,	.51 ,,	.61 ,,
5½ ,,	.41 ,,	.56 ,,	.66 ,,
6 ,,	.44 ,,	.60 ,,	.71 ,,
6½ ,,	.47 ,,	.64 ,,	.76 ,,
7 ,,	.51 ,,	.69 ,,	.81 ,,
7½ ,,	.54 ,,	.73 ,,	.86 ,,
8 ,,	.57 ,,	.77 ,,	.91 ,,
9 ,,	.64 ,,	.86 ,,	1.01 ,,
10 ,,	.71 ,,	.95 ,,	1.11 ,,

CORD Thimble (see Trimmings, car).

CORD, Tinsel.

Tinsel Cord.

Braided tinsel cordage for medical batteries, push buttons, etc.

Worsted Braided Tinsel Cord.

No. S-1191. Single conductor ..... per yd., $ .09
,, S-1192. Double ,, ... ,, .18

Silk Braided Tinsel Cord.

No. S-1193. Single conductor ..... per yd., $ .15
,, S-1194. Double ,, ... ,, .30

Linen Braided Tinsel Cord.

No. S-1195. Single conductor ..... per yd., $ .12
,, S-1196. Double ,, ... ,, .24

CORD Tips (see T).



Trolley Cord.

CORD, Trolley.

We furnish cotton cord in two styles, our " Spiral " or high grade, having a spiral marking of green thread, and our second grade " Wearwell," all white, either of which we can furnish weatherproofed or plain.

These cords are woven from the best grades of cotton, the fine strands of which are twisted first into strands of two or three and the whole so braided as to give the greatest degree of flexibility, together with the maximum strength and wearing qualities. The numbers correspond to the thirty-seconds of an inch in diameter.

				Spiral.	Wearwell.
No. 7....	7/32	in. diam., 22 lbs. approx. per 1,000 ft.	per lb.,	$ .38	$ .32
,, 8....	1/4	,, 28 ,, ,, ,, 1,000 ,, ...	,,	.38	.32
,, 9....	9/32	,, 32 ,, ,, ,, 1,000 ,, ...	,,	.38	.32
,, 10....	5/16	,, 40 ,, ,, ,, 1,000 ,, ...	,,	.38	.32
,, 12....	3/8	,, 55 ,, ,, ,, 1,000 ,, ...	,,	.38	.32

Railroad Bell and Signal Cord No. S-1197.

In coils of 1,200 feet each, or otherwise, as ordered in sizes Nos. 6, 7, 8, 9, 10.

White cotton ..... per lb., $ .40
Drab ,, ... ,, .45
Mahogany cotton ..... ,, .47½
Italian hemp ..... ,, .40
Linen ..... ,, .57½

We also furnish " Samson " spot cord and Massachusetts brands if desired.

CORNER Brace (see B).

CORNER Pins (see P).

CORSET Irons (see Irons).

COTTERS.

Spring Cotters No. S-1198.

Superseding all previous lists, in effect March 1, 1904.
All measurements are made under the eye.



Spring Cotter.

Price per 1,000.

Wire Gauge — 13	12	11	10	9	8	7	6
Diameter — 3/32	7/64	1/8	9/64	5/32	11/64	3/16	13/64
Length.							
1/2 .... $3.50	$4.00	$5.00	$6.00	$7.00	$8.00		
3/4 .... 4.15	4.75	5.85	7.00	8.15	9.30	$10.60	$12.00
1 .... 4.80	5.50	6.70	8.00	9.30	10.60	12.20	14.00
1 1/4 .... 5.45	6.25	7.55	9.00	10.45	11.90	13.80	16.00
1 1/2 .... 6.10	7.00	8.40	10.00	11.60	13.20	15.40	18.00
1 3/4 .... 6.75	7.75	9.25	11.00	12.75	14.50	17.00	20.00
2 .... 7.40	8.50	10.10	12.00	13.90	15.80	18.60	22.00
2 1/4	.....	10.95	13.00	15.05	17.10	20.20	24.00
2 1/2	.....	11.80	14.00	16.20	18.40	21.80	26.00
2 3/4	.....	.....	.....	.....	.....	23.40	28.00
3	.....	.....	.....	.....	.....	25.00	30.00

Wire Gauge — 5	4	1				
Diameter — 7/32	1/4	5/16	3/8	7/16	1/2	5/8
Length.						
1 ... $16.00	$20.00	$29.00				
1 1/4 ... 18.50	23.50	33.50				
1 1/2 ... 21.00	27.00	38.00	$60.00			
1 3/4 ... 23.50	30.50	42.50	66.00	$80.00		
2 ... 26.00	34.00	47.00	72.00	88.50	$110.00	
2 1/4 ... 28.50	37.50	51.50	78.00	97.00	121.00	
2 1/2 ... 31.00	41.00	56.00	84.00	105.50	132.00	
2 3/4 ... 33.50	44.50	60.50	90.00	114.00	143.00	
3 ... 36.00	48.00	65.00	96.00	122.50	154.00	$320.00
3 1/4	51.50	69.50	102.00	131.00	165.00	336.00
3 1/2	55.00	74.00	108.00	139.50	176.00	352.00
3 3/4	58.50	78.50	114.00	148.00	187.00	368.00
4	62.00	83.00	120.00	156.50	198.00	384.00
5	.....	.....	.....	190.50	242.00	448.00
6	.....	.....	.....	.....	286.00	512.00

COUNTERS, Pole.



Pole Counter.

Pole Counters.

A handy instrument for counting poles, arms, ties, etc., relieving the mind and enabling one to attend to other business at the same time. Arranged to fit palm of hand.

Can be set back to zero at any time a new count is desired.

No. 0. Tallies from 1 to 1,000 ..... each, $2.50
,, 1. ,, ,, 1 ,, 10,000 ..... ,, 3.50
,, 0. With bracket (for desk use) ..... ,, 3.00
,, 1. ,, ,, (,, ,, ,,) ..... ,, 4.00
,, 0. With safety pin (for attaching to coat) ..... ,, 3.00
,, 1. ,, ,, ,, (,, ,, ,, ,,) ..... ,, 4.00



Pin Car Coupler.

COUPLERS, Car.



Automatic Car Coupler.

Car Couplers.

We are prepared to furnish prices on application on all styles and makes of car couplers, both pin and automatic styles.

COUPLERS, Cord.



Single Cord Coupler.



Double Cord Coupler.

Triton Cord Couplers (genuine).

No. S-1199. Single coupler for 1/4 in. leather .... per 100, $8.00
,, S-1200. ,, ,, ,, 5/16 ,, ,, ... ,, 8.00
,, S-1201. ,, ,, ,, 1/4 ,, cotton .... ,, 8.00
,, S-1202. ,, ,, ,, 5/16 ,, ,, ... ,, 8.00
,, S-1203. Double ,, ,, 1/4 ,, leather, .. ,, 10.00
,, S-1204. ,, ,, ,, 5/16 ,, ,, ... ,, 10.00
,, S-1205. ,, ,, ,, 1/4 ,, cotton .... ,, 10.00
,, S-1206. ,, ,, ,, 5/16 ,, ,, ... ,, 10.00
,, S-1207. Special pliers ..... each, 3.00

COUPLERS, Trolley and Feed Wire (see Splicer).

COUPLINGS, Conduit (see Conduit).

COUPLINGS, Cord.



No. S-1208.

Register Cord Couplings.

Steel couplings drilled and fitted with pins. Can be firmly riveted to the braided rope, the end of which should first be tightly wound with wire.

No. S-1208.....$\frac{3}{8}$ in. diameter.....per pair, $ .25
,, S-1209.....$\frac{7}{16}$,, ,, ... ,, .30
,, S-1210.....$\frac{1}{2}$,, ,, ... ,, .35

Bell Cord Couplings.

Adapted for solid braided cotton bell cord No. 8.

No. S-1211. Japanned (malleable iron), per doz. pieces, $ .60
,, S-1212. Brass..... ,, 1.25
,, S-1213. Nickel plated (brass)..... ,, 1.50



No. S-1211.

COUPLINGS, Flexible (see Bushings, conduit).

Chase Flexible Metallic Conduit Couplings.

This coupling is designed to join Greenfield Flexible Metallic Conduit to any rigid iron armored conduit having standard gas pipe threads.

It is also used in connection with the Chase nipple to unite flexible conduit to junction and switch boxes.

No. S-1214. $\frac{1}{2}$-in. flexible conduit couplings...per 100, $12.00
,, S-1215. $\frac{3}{4}$,, ,, ,, ,, ... ,, 18.00



Chase Flexible Conduit Couplings.

COVER, Socket.

Socket Cover.

No. S-1216. Soft rubber socket cover..... each, $ .20



Socket Cover.

CRANE, Cutter's Driveway (see Poles).

CRANE, Cutter's Park (see Poles).

CRANE, Portable.

Franklin Portable Crane and Hoist.

Designed for use in power stations, shops, or factories. It will lift and carry three tons as easily as a man can carry 100 pounds. It is very easily moved and is so designed that it will maintain its equilibrium under all variations of load.

When handle is raised weight of machine rests on front wheels, until handle is pulled down when the weight again comes on the axle yoke.

Size.	Ht. Ft.	Ht. In.	Hoist. Ft.	Hoist. In.	Bed, Lgt. Ft.	Bed, Lgt. In.	Bed, Ht. In.	Over-hang. Ft.	Over-hang. In.	Capac. Tons.	Wt. Pounds.	Price.
SA	5	4½	4	3	2	11	11½	2	1½	1	600	$100.00
A	6	4½	5	3	3	2	12	2	4½	1½	665	100.00
2A	7	6	6	3	3	5	12	2	7½	2	800	112.50
3A	7	6	6	3	3	10	10½*	2	7½	2	785	112.50
B	8	4	7	3	3	10	12	2	8½	2½	1000	125.00
3B	8	4	7	3	3	10	10½*	2	8½	2½	1000	125.00
C	9	5	8	4	3	11	12	2	11	3	1150	150.00
D	9	5	8	4	4	11	12	3	11	3	1300	175.00
E	11	8	9	7	4	11	12	3	11	3	1500	175.00
F	12	9	11	8	5	1	12	4	1	3	1700	200.00

* Height of bed at front. Size 3A is 6⅜ inches height of bed at back, and size 3B, 6½ inches.



Portable Crane.

CREOSOTE.

Creosote.

For painting or dipping of cross arms, poles, etc., for preservation.

No. S-1217. Creosote.....per gal., $ .30

CROCUS Cloth (see Cloth).

CROOK, Park, Cutter's (see Poles, arc lamp).

CROSS Arms (see A).

CROSS Arm Clamps (see C).



No. 11297.



No. 11298.



No. 42413.



No. 19490.



No. 19406.



No. 26150.



No. 30615.

CROSSINGS.

Form G Crossings

(see also Frogs and Insulators, section).

The principle of the inclined plane to insure smooth transition of the trolley wheel between tongue and pan has been embodied in the design of these crossings, and the maximum speed at which the trolley will operate at crossing points has been greatly increased thereby.

No. 11297. Right-angle crossing, Form G, for wires up to and including No. 0000, round or grooved .each, $7.50

No. 11298. Adjustable crossing, Form G, for wires up to and including No. 0000, round or grooved. Can be set at any angle between 40° and 90°.....each, 10.00

No. 42413. 35° crossing, Form G, for wires up to and including No. 0000, round or grooved, for double-track turnouts where the angle at which the outer wire on the curve crosses the straight line at approximately 35°.....each, 7.50

No. 19490. 15° crossing, Form G, for wires up to and including No. 0000, round or grooved. Designed for use in double turnouts where both wires are of the same polarity, each, 7.50

Form L Insulated Crossings.

No. 19406. Adjustable insulated crossing, Form L, for No. 0 and 00 wire, round or grooved....each, $17.50

No. 19407. White fibre runway for No. 19406.....each, 1.00

No. 26150. Adjustable insulated crossing, Form L, for wire up to and including No. 0000, round or grooved, ...each, 20.00

No. 21457. White fibre runway for No. 26150.....each, 1.00

No. 30609. 15° insulated crossing, Form L, for wire up to and including No. 0000, round or grooved, each, 20.00

No. 30610. White fibre runway for No. 30609.....each, 2.50

No. 30611. 20° insulated crossing, Form L, for wire up to and including No. 0000, round or grooved, each, 20.00

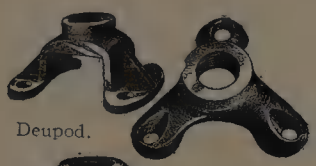
No. 30612. White fibre runway for No. 30611 .....each, 2.50

No. 30613. 27° insulated crossing, Form L, for wire up to and including No. 0000, round or grooved . . each, 20.00

No. 30614. White fibre runway for No. 30613.....each, 2.00

No. 30615. 35° insulated crossing, Form L, for wire up to and including No. 0000, round or grooved, each, 20.00

No. 30616. White fibre runway for No. 30615 .....each, 2.00



Deupod. Crowfoot.



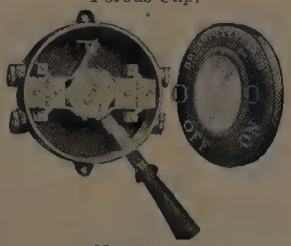
Ring Crowfoot.



Insulated Crowfoot.



Porous Cup.



No. 934.
Bryant-Cleveland Arc Cut-Out.



Cutter's Cut-Out Pulley.

CROWFEET.

Malleable Iron Crowfeet.

Made in three styles, as shown. The deupods are furnished in $\frac{3}{8}$-inch and larger iron pipe sizes only.

		No. S-1218. Deupod.	No. S-1219. Crowfoot.	No. S-1220. Ring Crowfoot.
$\frac{1}{8}$-inch	iron pipe size ..... per 100,	$6.00	$4.00	$6.00
$\frac{1}{16}$,,	brass ,, ... ,,	6.00	4.00	6.00
$\frac{1}{4}$,,	iron ,, ... ,,	6.00	4.00	6.00
$\frac{3}{8}$,,	,, ,, ... ,,	6.00	4.00	6.00
$\frac{1}{2}$,,	,, ,, ... ,,	6.00	4.00	6.00

Insulated Crowfeet.

Macallen insulated crowfeet are made in malleable iron only.

No. 1401	$\frac{1}{8}$ inch	each,	$ .45
,, 1402	$\frac{1}{4}$,, ...	,,	.45
,, 1403	$\frac{3}{8}$,, ...	,,	.45
,, 1404	$\frac{1}{2}$,, ...	,,	.60
,, 1405	$\frac{3}{4}$,, ...	,	.90

CUPS, Burner (see Plates, bracket).

CUPS, Leclanche.

Leclanche Cups.

No. S-1221. Filled Leclanche cups ..... each, $ .36

CUPS, Porous.

Empty Porous Clay Cups.

Used in various forms of wet batteries which have more than one solution.

No. S-1222	3 x 5½ in.	per doz.,	$3.60
,, S-1223	3 x 7 ,, ...	,,	6.00
,, S-1224	3 x 8 ,, ...	,,	8.00

CUPS, Acorns, and Pins (see Acorns).

CURLING Iron Heaters (see H).

CURRENT Tap (see T).

CUTLET Dish (see D).

CUT-OUTS, see following headings:

Cut-Out, Arc.
,, Arresters (see A).
,, Boxes (see Boxes, fuse).
,, Combination (see Switches, combination, and Switches, service).
,, Edison Plug.
,, Fuse (see Fuses, enclosed).
,, Hood (see Hood).
,, Panel (see Cut-Outs, Edison plug, and Panelettes, Cabinets, etc.)
,, Rosette (see Rosettes).
,, Slate Base (see Fuses, enclosed).
,, Switches (see Switches, combination, and Switches, time).

CUT-OUTS, Arc (see also Boards, hanger; also Switches, oil break).

Bryant-Cleveland Arc Cut-Out.

No. 934. Porcelain insulation, circular metal case with window in front showing position of contacts so that lineman may be certain that current is "off." Handle also indicates "on" and "off" position of contacts ..... each, $4.00

Cutter's Cut-Out Pulley.

A pulley which not only holds the lamp securely when raised, but also shunts the circuit before the lamp is lowered, switching the lamp into the circuit again when raised to its normal position. Double phosphor bronze contact springs with heavy copper contact shoes (and rubbing action to keep the surface clean) insure good electrical connection.

With this pulley the wires are never lowered, hence they can be run taut (making neater construction) while the lamp can be lowered straight down between trolley wires or other obstacles.

(Continued on next page.)



Cutter's High Insulation Switch.



No. 575 Cut-Out.



No. 275 Cut-Out.



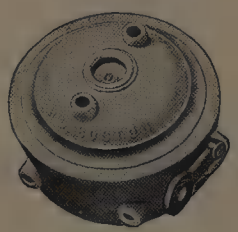
No. 550 Cut-Out.



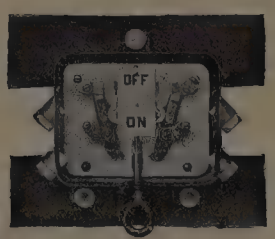
No. 500 Cut-Out.



No. 600 Cut-Out.



No. 625 Cut-Out.



No. 80331 Cut-Out.



No. 42185 Cut-Out.

CUT-OUTS, Arc.

Cutter's Cut-Out Pulley (Continued).

Lamps can be trimmed, adjusted or even replaced with safety on the live circuits, thus reducing the deductions for outages of street lamps.

No. S-1225. Complete, except rope and wire, $5.00
,, S-1226. Same with end clamp for 1¼-in. (bore) iron pipe..... 5.00
No. S-1227. Same with end clamp for 1½-in. (bore) iron pipe..... 5.00
No. S-1228. Same with sleeve clamp for 1¼-in. (bore) iron pipe..... 5.00
No. S-1229. Same with sleeve clamp for 1½-in. (bore) iron pipe..... 5.00
No. S-1230. Same with sleeve clamp for 1-in. (bore) iron pipe..... 5.00
No. S-1231. Same with sleeve clamp for ¾-in. (bore) iron pipe..... 5.00
No. S-1232. Same with ceiling plate, for beams or girders..... 5.00

Cutter's High Insulation Switch.

An absolute cut-out switch for series arc lamps; switch works hermetically sealed in. Line wire supports well insulated without extra insulator above.

No. S-1233. Cutter's high insulation switch, each, $3.00

Lundin Arc Cut-Outs.

No. 275. Series wall switch with absolute cut-out made of porcelain each, $5.00
No. 500. Hanger board with absolute cut-out for series arc lamps; indoor use..... each, 5.60
No. 550. Hanger board with absolute cut-out for series arc lamps for outdoor use. Ring hanger... each, 7.70
No. 575. Hanger board with absolute cut-out for series arc lamps for outdoor use. Insulated hanger, each, 8.00
No. 600. Series arc switch for pole bases, net, each, 3.50
No. 625. Series arc cut-out for high voltage,..... net, each, 6.00

Wood Arc Cut-Outs.

No. 42185. A weatherproof suspension cut-out tested for 5,000 volts between contacts. Will stand eight times this between line wires and the suspension. Movement of insulated handle momentarily short circuits lamp and then disconnects it absolutely from line.....each, $8.50
No. 80331. This cut-out is designed for use on direct or alternating current series circuits of any voltage up to 2,500 and will successfully control circuits of 50 open or 30 enclosed arc lamps. The iron box is provided with three lugs for mounting on porcelains as shown, furnishing a double insulation between line and ground...each, 5.00

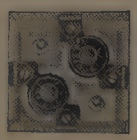
CUT-OUT Arresters (see A).

CUT-OUT Boxes (see Boxes, fuse).





No. 62569. No. 62965. No. 61935.




No. 8020 No. 62587.




No. 62165. No. 62199.




No. 8042. No. 62135.



G. E. Plug Cut-Outs with Covers.




No. 10975. With Plugs. No. 10976. With Plugs.




No. 10977. No. 10978.

CUT-OUTS, Combination (see Switches, combination and service).

CUT-OUTS, Edison Plug (see Boxes, service, and Fuses, enclosed).

G. E. Plug Cut-Outs.

These cut-outs are for the protection of circuits having a maximum current of 30 amperes and maximum potentials of 125 and 250 volts. The standard G. E. fuse plugs should be used for the protection of 125-volt circuits. For the protection of 250-volt circuits the renewable fuse plugs should be used.

No.		Std. Pkg.	Each.
62569.	Single-pole main line cut-out	150	$ .18
62965.	Double-pole main line cut-out	150	.30
61935.	Double-pole single-branch cut-out	100	.32
62587.	Double-pole double-branch cut-out	100	.62
8020.	Double-pole double or single cross-over branch cut-out	150	.36
62199.	3- to 2-wire double-branch cut-out	100	.64
62165.	3-wire main line cut-out	100	.44
8042.	3-wire single-branch cut-out	75	.54
62135.	3-wire double-branch cut-out	50	.90

Above cut-outs take regular fuse plugs listed under " Plugs, Fuse." Prices are without plugs.

G. E. Plug Cut-Outs with Covers.

These contain all the good features of other cut-outs and, moreover, they eliminate any danger of accidental short circuits by their substantial porcelain covers, which protect all metal parts.

It is impossible when inserting the fuse plugs to touch any live part of the cut-out.

The connection strips, which are all on the front of the base, are insulated by porcelain blocks or bridges where they cross under the main wire slots.

The centre and screw shell contacts are similar to those of the standard receptacles. The cut-outs have a rating of 3 to 30 amperes, 250 volts.

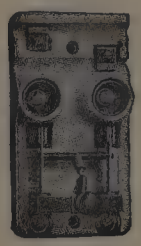
		Std. Pkg.	Each.
No. 36537.	2-wire main line	150	$ .36
,, 36539.	2 ,, single branch	100	.44
,, 36543.	2 ,, double branch	100	.81
,, 36544.	Single or double cross over	150	.53
,, 36538.	3-wire main line	100	.50
,, 36540.	3 ,, single branch	75	.84
,, 36541.	3- to 2-wire double branch	100	.88
,, 36542.	3- to 3- ,, ,, ,,	50	1.36

G. E. Large Capacity Plug Cut-Outs.

For the protection of circuits having a maximum current of 60 amperes and a maximum potential of 250 volts. Plugs not included in following catalogue numbers.

		Std. Pkg.	Each.
No. 10975.	Double-pole, main line, Ed. plug cut-out, 60 amps., 250 volts	50	$1.50
No. 10976.	Triple pole, main line, Ed. plug cut-out, 60 amps., 250 volts	50	2.25
No. 10977.	Double pole, single branch, Ed. plug cut-out, 60 amps., 250 volts	50	1.75
No. 10978.	Triple pole, single branch, Ed. plug cut-out, 60 amps., 250 volts	50	3.00

(For plugs for above see " Plugs, fuse.")



No. 27746.



No. 4012.



No. 4017.



No. 4015.



No. 4018.



No. 4026.



No. 4027.



No. 4013.



No. 4019.



No. 5190.



No. 5192.

CUT-OUTS, Edison Plug (Continued).

G. E. Panel Cut-Outs

(see Switches, entrance).

	Std. Pkg.	Each.
No. 27746. D. P. S. T., 30 amps., 250 volts for branch wiring. . .	50	$2.25
No. 27747. T. P. S. T., 30 amps., 250 volts, for branch wiring. . .	25	3.00

Paiste Panel Cut-Outs

(see Switches, entrance).

Made in two types, one for use where mains are brought into top of panel box with branches out at sides; the other, where mains are brought in at the sides and the branches run up or down. Capacity of switches, 15 amperes.

For 125 Volts.	Std. Pkg.	Pkg. Wt.Lbs.	Each.
No. 4012. 2-wire, single branch, mains vertical. branches horizontal, size $3\frac{3}{16}$ x $6\frac{1}{4}$ x $1\frac{5}{8}$ in...	100	225	$1.00
No. 4017. Same as No. 4012, except mains horizontal, branches vertical	100	225	1.00
No. 4015. 2-wire, double branch, mains vertical, branches horizontal, size $3\frac{3}{16}$ x $10\frac{3}{8}$ x $2\frac{3}{16}$ in..	50	250	2.00
No. 4018. Same as No. 4015, except mains horizontal, branches vertical.....	50	250	2.00
No. 4026. 3-wire, single 2-wire branch, mains vertical, branches horizontal, size $3\frac{3}{16}$ x $7\frac{1}{4}$ x $1\frac{5}{8}$ in.,	50	186	1.10
No. 4027. Same as No. 4026, except mains horizontal, branches vertical.....	50	186	1.10
No. 4013. 3-wire, double 2-wire branches, mains vertical, branches horizontal, size $3\frac{3}{16}$ x $11\frac{1}{2}$ x $2\frac{3}{16}$ in.	50	270	2.10
No. 4019. Same as No. 4013, except mains horizontal, branches vertical.....	50	270	2.10

For 220 Volts.	Std.	Pkg.
No. 4101. Same as 4012 except voltage and size.....	50	$1.10
No. 4102. Same as 4017 except voltage and size.....	50	1.10
No. 4105. Same as 4015 except voltage and size.....	25	2.20
No. 4106. Same as 4018 except voltage and size.....	25	2.20

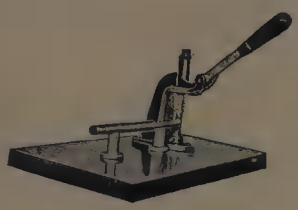
Paiste Panel Cut-Outs for Rotary Switches.

They can all be used with any of the standard D-P Rotary Snap Switches, Hart, Diamond " H," or Perkins, so you can still exercise your preferences in such switches. Should a switch break down, it can be replaced by a good one without removing the wire connections from the cut-out or the cut-out from the cabinet.

It takes only the four styles to cover the whole line; the single and double two-wire branches from two-wire mains, and the single and double two-wire branches from three-wire mains.

	Std. Pkg.	Each.
No. 5190. 2-wire single branch	50	$ .70
,, 5191. 3 ,, to 2-wire single branch..	50	.80
,, 5192. 2 ,, double branch	25	1.30
,, 5193. 3 ,, to 2-wire double branch.	25	1.40

CUT-OUTS, Fuse (see Fuses, enclosed).
CUT-OUTS, Hood (see Hoods).
CUT-OUTS, Panel (see Cut-Outs, Edison plug, and Panelettes, Cabinets, etc.).



No. 1029.

CUT-OUTS, Rosette (see Rosettes).

CUT-OUTS, Slate Base (see Fuses, enclosed).

CUT-OUT Switches (see Switches, combination, and Switches, time).

CUTTERS, Bolt and Wire (see Clippers, bolt).

CUTTERS, Carbon (see Pliers).

Lundin Carbon Cutters.

No. 1029. Hand carbon cutter for cutting arc lamp carbons to exact lengths. Complete.....each, $36.00

CUTTERS, Pipe.

Trimo Pipe Cutter.

Combination one or three wheels.

No. 1.	Cuts pipe	$\frac{1}{8}$ to $1\frac{1}{4}$ inch	each,	$4.50
,, 2.	,,	$\frac{1}{2}$,, 2 ,,	,,	6.00
,, 3.	,,	$1\frac{1}{4}$,, 3 ,,	,,	10.00



Trimo Pipe Cutter.

CUTTERS, Sleet.

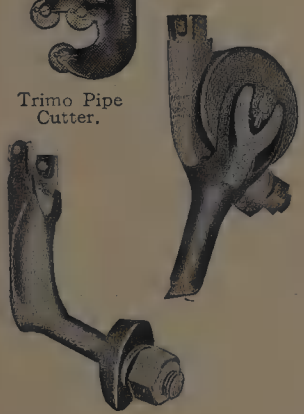
G. E. Sleet Cutters.

An attachment to fit over the trolley wheel without removing same from the harp.

No. S-1234.	Sleet cutter for small wheels	each,	$ .90
,, S-1235.	Sleet cutter for high-speed wheels	,,	1.10

The O. K. Sleet Cutter.

The device consists of a malleable iron casting that is practically indestructible, and a soft brass contact lug that can be easily renewed. The accompanying illustrations show the simplicity of this device and the ease with which it can be attached, The shank is bolted to the harp by means of a lock washer and nut, so that it cannot turn or be twisted out of position. The motorman with one free hand can make the attachment in a moment without removing the wheel. The device is self-adjusting, and once bolted to the harp becomes a part thereof for all practical purposes. It fits snugly, does not interfere with the free action of the wheel and has no projection that could catch the trolley wire should the wheel leave the latter. The brass lug, which makes the contact with the wire, is fastened to the malleable iron shank by means of rivets. This lug is made soft enough to take the wear and not injure the wire. When it does become worn it can be easily replaced by a new one. The sliding contact eliminates continuous sparking, so noticeable in the use of sleet wheels.



O. K. Sleet Cutter.

			Net, each.
No. 1.	O. K. sleet cutter for 5- or 6-in. wheel, wt. $1\frac{1}{2}$ lbs.,		$ .65
,, 2.	,, ,, ,, ,, 4 ,, $4\frac{1}{2}$,, ,, ,,	$1\frac{1}{4}$,,	.55
	Extra brass lugs for either of above, ,,	$\frac{1}{4}$	.20



G. E. Sleet Cutter.

CUTTERS, Wire (see Clippers, bolt, and Pliers).

DALE Portable Lamp (see L).

DANDY Indicating Bell (see B.)

DEAD Man (see Support).

DECK Cable (see Cable).

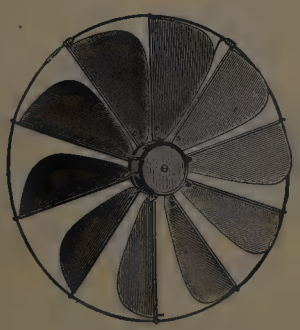
DEFLECTORS, Air.

Morgan Air Deflector.

An attachment which can be instantly hooked on to the guard of an ordinary electric fan motor for the purpose of deflecting or distributing the breeze so as to cover a large or small area. according to the angle of deflection of the adjustable blades.

Prevents colds or the blowing of papers from the desk.

No. S-1239. Morgan air deflector.....each, $2.50



Morgan Air Deflector.

DEFLECTORS (see Fixtures, street, and Shades).



No. 1.



No. 2.



Depolarizer.



No. 3339.

DEMAGNETIZERS.

Watch Demagnetizers.

These are standard instruments made for either alternating or direct current circuits.

No. 1. For direct current $15.00
,, 2. ,, alternating ,, ... 5.00

DEPOLARIZER.

Depolarizer.

Put up in packages containing the requisite amount of material for refilling the carbon cup of battery.

No. S-1240. Depolarizer ..... per pkg., $ .10

Also sold by the pound in quantity if desired.

DESK Clamps (see C).

DESK Lamps (see L).

DESK Push (see P).

DETECTORS, Ground.

G. E. Electrostatic Ground Detectors.

Single-Phase.

No. 3338. Iron case, 1150 volts ..... each, $50.00
,, 3339. ,, ,, 2300 ,, ... ,, 60.00
,, 56169. Round pattern (sheet metal) glass front, 1150 volts ..... ,, 100.00
No. 56170. Ditto, 2300 ,, ... ,, 100.00
,, 51125. ,, 3300 ,, ... ,, 100.00
,, 51126. ,, 6600 ,, ... ,, 105.00
,, 3341. ,, 11000 ,, ... ,, 115.00

Three-Phase.

No. 28791. Iron case, 1150 volts ..... each, $100.00
,, 28792. ,, ,, 2300 ,, ... ,, 120.00
,, 28793. ,, ,, 3300 ,, ... ,, 160.00
,, 51134. Round pattern (sheet metal) glass front, 1150 volts ..... ,, 240.00
No. 51135. Ditto, 2300 ,, ... ,, 250.00
,, 51136. ,, 3300 ,, ... ,, 260.00
,, 51137. ,, 6600 ,, ... ,, 270.00
,, 51138. ,, 11000 ,, ... ,, 290.00



Weston Ground Detector.

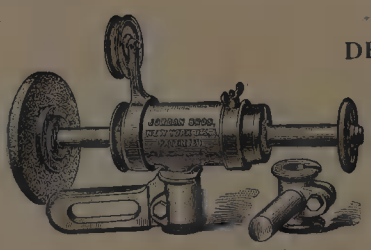
Weston Ground Detector.
Direct Current Model 1.

This ground detector, which is practically a zero-centre voltmeter, is intended to be fastened to the switchboard. It is provided with three binding-posts, two of which are connected with the line in the usual manner, and the third is grounded. Two push buttons are on the base, by pressing either of which connection is made with the ground through the instrument. The instrument is intended to be attached to the switchboard in about the position shown in the cut.

The deflection of the pointer having been noted, the insulation of the line is determined directly in ohms by reference to the computing device which is furnished with each instrument.

No. S-1241. 125 volts, with computing device $65.00
,, S-1242. 300 ,, ,, ,, ,, ... 70.00
,, S-1243. 600 ,, ,, ,, ,, ... 75.00

These three instruments can be used only on a complete two-wire metallic circuit.



Commutator Truing Device.

DEVICE, Commutator Truing.

Jordan Commutator Truing Device.

The wheel is of special composition, contains no emery or other mineral matter, and will not injure the insulation between the segments of the commutator.

Can be used on large motors by attaching direct to frame or rocker arm. Does away with danger of pointed tools digging into commutator bars, or dragging copper across the insulation.

(*Continued on next page.*)

DEVICE, Commutator Truing.

Jordan Commutator Truing Device (Continued).

Commutators turned by this device will be perfectly smooth and true.

All parts standard and interchangeable.

Prices include an 8-inch special wheel and 5 feet of round belting.

Type B.	For 6-in. face commutator	$50.00
,, E.	,, 12 ,, ,, ,,	95.00
	,, 14 ,, ,, ,,	105.00
	,, 15 ,, ,, ,,	110.00
	,, 18 ,, ,, ,,	135.00

DIAPHRAGMS.

Receiver and Transmitter Diaphragms.



Carbon Diaphragm.

No. S-1244.	Ferrotype plate receiver diaphragms	each, $ .15
,, S-1245.	Carbon diaphragms for transmitters	,, .15

Note.—Give full particulars in regard to diameter, thickness, etc., in ordering.

DIGGING Bar (see B).

DIMMERS, Theatre.

Wirt Theatre Dimmers.

These dimmers are designed for 16-candle-power, 50-watt lamps. The metallic resistance is entirely enclosed in iron cases, making them fireproof. Mica insulation.



Wall Pattern Dimmer.

Wall Pattern 2-wire 110 Volts.

No.	No. of 16 C. P. 50-Watt Lamps Controlled.	Size in Inches	No. of Plates.	No. of Steps.	List.
D-1306	8	9	1	50	$11.50
D-1307	10	9	1	50	11.50
D-1308	15	10	1	50	14.25
D-1309	20	10	1	50	14.25
D-1310	25	10	1	50	14.25
D-1311	30	12	1	50	18.25
D-1312	40	14	1	50	21.50
D-1313	50	16	1	50	26.25
D-1314	60	14	2	100	43.00
D-1315	75	14	2	100	43.00
D-1316	100	16	2	100	52.50



Non-Interlocking.

Non-interlocking 2-wire 110 Volts.

No.	No. of 16 C. P. 50-Watt Lamps Controlled.	Size in Inches.	No. of Plates.	No. of Steps.	List.
D-1327	10	12	1	50	$24.50
D-1328	15	12	1	50	24.50
D-1329	20	12	1	50	24.50
D-1330	25	12	1	50	24.50
D-1331	30	12	1	50	24.50
D-1332	40	14	1	50	27.50
D-1333	50	16	1	50	32.50
D-1334	75	14	2	100	55.50
D-1335	100	16	2	100	65.00

Interlocking 2-wire 110 Volts.

No.	No. of 16 C. P. 50-Watt Lamps Controlled.	Size in Inches.	No. of Plates.	No. of Steps.	List.
D-1347	10	12	1	50	$29.00
D-1348	15	12	1	50	29.00
D-1349	20	12	1	50	29.00
D-1350	25	12	1	50	29.00
D-1351	30	12	1	50	29.00
D-1352	40	14	1	50	32.00
D-1353	50	16	1	50	37.00
D-1354	75	14	2	100	60.00
D-1355	100	16	2	100	69.50

DIMMERS, Theatre.

Wirt Theatre Dimmers (Continued).

Non-interlocking 3-wire 110–220 Volts.

No.	No. of 16 C. P. 50-Watt Lamps Controlled.	Size in Inches.	No. of Plates.	No. of Steps.	List.
D-1421	30	14	2	50	$55.50
D-1422	40	14	2	50	55.50
D-1423	50	14	2	50	55.50
D-1424	75	14	2	50	55.50
D-1425	100	16	2	50	65.00

Interlocking 3-wire 110–220 Volts.

No.	No. of 16 C. P. 50-Watt Lamps Controlled.	Size in Inches.	No. of Plates.	No. of Steps.	List.
D-1441	30	14	2	50	$60.00
D-1442	40	14	2	50	60.00
D-1443	50	14	2	50	60.00
D-1444	75	14	2	50	60.00
D-1445	100	16	2	50	69.50

Wirt Universal Theatre Dimmers.



Interlocking.

The Wirt Universal Theatre Dimmer is designed to meet the varying conditions encountered in equipping a theatre. The operating board is made up of units generally arranged on three shafts, one for each color, red, white, and blue, and the dimmers may be mounted in three ways, — on rear of board itself, on proscenium wall above operating board, or in basement under stage floor, in the two latter cases the control being by means of cord (insulated take-up) and pulleys.

The prices in following list include dimmer, operating lever, master lever, shaft, shaft brackets, galvanized cable, and cable take-up, mounted on wood template.

We will be pleased to make special quotations on any set of dimmers mounted on marble or slate.

Gang Shaft for Three Shafts, Price, $312 List.

Switchboard Style 2-wire 110 Volts.

No.	No. of 16 C. P. 50-Watt Lamps Controlled.	Diam. of Dimmer Plate.	No. of Plates.	No. of Steps.	List.
U-2001	15	12	1	50	$59.50
U-2002	25	12	1	50	59.50
U-2003	30	12	1	50	59.50
U-2004	40	14	1	50	64.50
U-2005	50	16	1	50	67.00
U-2006	60	14	2	100	95.00
U-2007	75	14	2	100	95.00
U-2008	100	16	2	100	114.00

Wall or Basement Style 2-wire 110 Volts.

No.	No. of 16 C. P. 50-Watt Lamps Controlled.	Diam. of Dimmer Plate.	No. of Plates.	No. of Steps.	List.
U-2021	15	12	1	50	$62.50
U-2022	25	12	1	50	62.50
U-2023	30	12	1	50	62.50
U-2024	40	14	1	50	67.00
U-2025	50	16	1	50	71.00
U-2026	60	14	2	100	100.00
U-2027	75	14	2	100	100.00
U-2028	100	16	2	100	117.50

DIMMERS, Theatre.

Wirt Universal Theatre Dimmers (Continued).

Switchboard Style 3-wire 110–220 Volts.

No.	16 C. P. 50-Watt Lamps Controlled.	Diam. of Dimmer Plate.	No. of Plates.	No. of Steps.	List.
U-2041	15	12	2	50	$86.00
U-2042	25	12	2	50	86.00
U-2043	30	12	2	50	86.00
U-2044	40	12	2	50	86.00
U-2045	50	12	2	50	86.00
U-2046	60	14	2	50	95.00
U-2047	75	14	2	50	95.00
U-2048	100	16	2	50	114.00

Wall or Basement Style 3-wire 110–220 Volts.

U-2061	15	12	2	50	$90.00
U-2062	25	12	2	50	90.00
U-2063	30	12	2	50	90.00
U-2064	40	12	2	50	90.00
U-2065	50	12	2	50	90.00
U-2066	60	14	2	50	100.00
U-2067	75	14	2	50	100.00
U-2068	100	16	2	50	117.50

Wirt Ventilated Dimmers

For use on circuits above 50 amperes. This type when used in connection with a universal dimmer for house circuits is usually placed in a convenient location and operated by hand-wheel on dimmer board connected to dimmer by sprockets and chain.

2-wire 110 Volts.

No.	No. of 16 C. P. 50-Watt Lamps Controlled.	No. of Steps.	List.
U-2081	150	50	$120.00
U-2082	200	50	132.50
U-2083	250	50	170.00
U-2084	300	50	182.50

3-wire 110–220 Volts.

U-2091	150	50	$130.00
U-2092	200	50	170.00
U-2093	250	50	180.00
U-2094	300	50	195.00

DISC Stoves (see S).

DISH, Electric Chafing.



No. 1205.

	Simplex Electric Chafing Dishes.	Watts.	Price.
No. 1200.	Two pints. Suitable for one or two. Heater, 4½-in. diam. Complete with flexible conductor and plug ready to connect to lamp socket. Same as No. 1201, except it is one heat only. Nickel plated	250	$11.00
No. 1210.	Same. Silver plated	250	18.25
,, 1201.	Two pints. Heater, 4½-in. diam. Has three divisions of heat and regulating switch. Nickel plated	250	13.50
No. 1211.	Same as No. 1201. Silver plated	250	20.00
,, 1202.	Two pints. Same as above. Heater, 4½-in. diam., with regulating switch, and has pierced or open pattern same as No. 1209. Nickel plated	250	14.00
No. 1212.	Same. Silver plated	250	21.00
,, 1204.	Three pints. Standard size. Heater, 6-in. diam. Plain, with flexible conductor. Same as No. 1205, except it has one heat only. Nickel plated	500	14.00
No. 1214.	Same. Silver plated	500	23.50
,, 1205.	Three pints. Heater, 6-in. diam. Same as above, except it has three divisions of heat and regulating switch. Nickel plated	500	16.00
No. 1215.	Same. Silver plated	500	25.50



No. 1207.



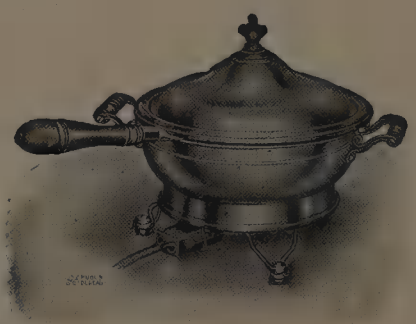
No. 0205.



No. 1249.



Nos. 0234, 0235, 0236, 0237.



G. E. Chafing Dish.

DISH, Electric Chafing.

Simplex Electric Chafing Dishes

(Continued).

	Watts.	Price.
No. 1206. Three pints. Same as No. 1205, but is finished with pearl beading on cover and heater. An attractive quiet pattern. Heater, 6-in. diam. Has three heats and regulating switch. Nickel plated	500	$17.75
No. 1216. Same. Silver plated	500	28.00
,, 1207. Three pints. A handsome pattern. Heater, 6-in. diam. Has three heats and regulating switch. Nickel plated	500	17.75
No. 1217. Same. Silver plated	500	28.00
,, 1209. Three pints. Same as No. 1207, but with beading. Heater, 6-in. diam., arranged for three heats, with regulating switch. Nickel plated	500	18.75
No. 1219. Same. Silver plated	500	29.50

Chafing Dish Extras.

No. 0230. Enamel food pan. Fits three-pint chafing dish. Has ebony handle	$2.25
No. 0205. Chafing dish and cover. Nickel plate. Ebony handle. Fits stove No. 1788 (see Stoves)	5.00
No. 0232. Cutlet dish. Made in style and finish to match electric chafing dish and has grooves for clamping on ornamental stove. Fits 6-in. stove. Nickel plated. Has ebony handle	2.00
No. 0233. Same. Silver plated	3.90
,, 0234. Chafing dish spoon. Silver plated. Has ebony handle	1.50
No. 0235. Chafing dish fork. Same	1.50
,, 0236. Chafing dish spoon. Same	2.00
,, 0237. Chafing dish fork. Same	2.00

Chafing Dish Trays or Waiters.

Heavy nickel or silver plated, as listed. Satin finish.

No. 0240. 10-in. ball border to match chafing dish No. 1209. Nickel plated	$1.90
No. 0241. Same. Silver plated	3.00
,, 0242. 10-in. pearl border to match chafing dish No. 1206. Nickel plated	2.00
No. 0243. Same. Silver plated	3.10
,, 0244. 12-in. ball border to match chafing dish No. 1209. Nickel plated	2.40
No. 0245. Same. 12 in. Silver plated	3.85
,, 0246. 12-in. pearl border to match chafing dish No. 1206. Nickel plated	2.10
No. 0247. Same. 12-in. Silver plated	3.50

G. E. Electric Chafing Dish.

The outside is of aluminum and the inside is of plated copper. The heating element is the " Quartz Enamel " type.

No. 42670. Two heat, low 220–265 watts, 95–105 volts; high 500–650 watts, 95–105 volts	$18.00
No. 42671. Two heat, low 220–265 watts, 106–115 volts; high 500–650 watts, 106–115 volts	18.00
No. 39520. Two heat, low 220–265 watts, 116–125 volts; high 500–650 watts, 116–125 volts	18.00

DISHES (see Shades).
DISTRIBUTER (see Timer; also Fixtures).
DISTRIBUTING Board (see Boxes, Cabinets, Panels, Cut-Outs, Panelettes).

DOG, Cant (see Hook, cant).
DOME Shades (see Shades).
DOOR Opener (see O).
DOOR Pull Attachment (see Attachments).
DOOR Spring (see S).
DOOR Trip (see Springs).
DOORWAY Hood (see H).
DOUBLE Boiler (see Boiler, electric).
DRESSING, Belt.

Belt Dressing.

"Cling Surface".....per lb., $1.00

DRIER, Sand.

Clark's Perfect Sand Drier.

For use by street railways, etc., in drying sand to be used in sand boxes of street cars, to prevent clogging and packing.

No. 1. Dries about 10 tons of sand per day, each, $75.00

No. 2. Dries about 5 tons of sand per day, ,, 45.00



Sand Drier.

DRILLS, see following headings:
Drills, Bell Hangers (see Gimlets).
,, Electric (see Motors, power).
,, Electricians'.
,, Hand and Brick.
,, Rail.

DRILLS, Bell Hangers' (see Gimlets, and Drills, electricians').
DRILLS, Electric (see Motors, power).
DRILLS, Electricians' (see also Gimlets).

Syracuse Drills.

The numbers indicate the size in 32ds.

No.	12 In. Per Doz.	18 In. Per Doz.	24 In. Per Doz.	30 In. Per Doz.	36 In. Per Doz.
6	$5.00	$7.00	$9.00	$11.00	$13.00
8	5.00	7.00	9.00	11.00	13.00
10	5.50	7.50	9.50	12.00	13.00
12	6.00	8.00	10.00	12.00	13.00
14	7.00	9.00	11.00	13.00	14.00
16	8.00	10.00	12.00	14.00	15.00
18	9.00	11.00	13.00	15.00	16.00
20	10.00	12.00	14.00	15.00	16.00
22	11.00	13.00	15.00	16.00	17.00
24	12.00	14.00	16.00	17.00	18.00
26	13.00	15.00	17.00	18.00	18.00
28	14.00	16.00	18.00	19.00	19.00
30	15.00	17.00	19.00	20.00	20.00
32	16.00	18.00	20.00	20.00	20.00
34	17.00	19.00	20.00	20.00	20.00
36	18.00	20.00	21.00	21.00	21.00

Adjustable iron handles for above drills.per doz., $1.25


Electricians' Drill.

DRILLS, Hand (see Tool, boring).

Millers Falls Hand Drill No. 1.

These drills are provided with chucks having three jaws, resting in solid sockets. There are no springs to get out of place or out of order. The chucks are nickeled and the handles are cocobola. They hold drills from 0 to $\frac{3}{16}$. A side handle is furnished with this drill.

Complete, including 8 fluted points in hollow handle.....each, $1.25

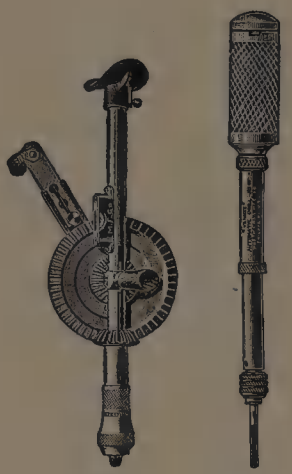

No. 1 Drill.

Millers Falls Hand Drill No. 5

Has same chuck as No. 1, but is double geared and is provided with a wide rim gear, to be grasped between thumb and fingers when drill is used for delicate work. In this manner it can be run without liability of breaking points. Length over all 11½ inches, weight 20 ounces.

Complete, including 8 fluted points.....each, $1.50


No. 5 Drill.



No. 10 Drill. No. 41. Drill.

DRILLS, Hand (Continued).

Millers Falls Breast Drill No. 10.

With ball bearings, nickel plated stock and chuck, cocobola handles, extension crank, alligator jaws, which hold both round and square shanks, and a patent level attachment to enable the operator to see when the tool is held true. The gears are cut and are changeable from even to speeded 3 to 1.

Complete ..... each, $3.00

Yankee Drills. No. 41.

Yankee automatic drill for boring hard or soft wood without splitting. Pushing handle down revolves drill, spring brings it back. During the return movement the drill revolves backwards to clear it of chips. Eight drills are furnished with each tool from $\frac{1}{16}$ to $\frac{11}{64}$ inch inclusive, in hollow handle.

	Wt. per Doz. in Box.		
Length of tool, $11\frac{3}{8}$ in.....	7 lbs. 12 oz.....	each,	$1.75
Extra drill points, all sizes		per doz.,	.75

No. S-1246. Star Drills.

Made of fine octagon tool steel. Especially adapted for stone drilling.

Drills of intermediate diameters take the list price of the next size larger.

Drills of larger diameter or longer than shown above will be furnished on order at the same proportionate list price. List price per dozen.

	Diameter of Cutting Edge.					
Length.	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
12	$8.50	$8.50	$10.00	$12.00	$14.00	$16.00
18		10.75	12.50	15.00	17.50	20.00
24			15.00	17.50	20.00	22.50

Length.	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$
12	$18.00	$24.00	$30.00	$50.00	$75.00
18	22.50	28.00	35.00	56.00	81.00
24	25.00	32.00	40.00	62.00	87.00



Star Drill. No. S-1246. Star Pipe Drill. No. S-1247.

No. S-1247. Star Pipe Drills.

For drilling brick, cement, etc. List price per dozen.

	Diameter of Cutting Edge.					
Length.	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
12	$8.50	$8.50	$10.00	$12.00	$14.00	$16.00
18		10.75	12.50	15.00	17.50	20.00
24			15.00	17.50	20.00	22.50

Length.	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$
12	$18.00	$24.00	$30.00	$50.00	$75.00
18	22.50	28.00	35.00	56.00	81.00
24	25.00	32.00	40.00	62.00	87.00

DRILLS, Rail.

The Paulus Track Drills.

The best features of the Paulus drills are as follows: action of the bit is continuous, the operator can maintain an upright position, bit need not be withdrawn for passing trains, the top of frame may be thrown back and the hooks lifted, requiring but a second and it may be as readily replaced, feed is automatic and requires no attention. Weight, 60 pounds. Uses twist drills.

No. S-1248. Complete with one twist bit $20.00
,, S-1249. Equipped with Rich spindle, chuck, and one flat bit 25.00



Buda Rail Drill.

Buda Pattern Track Drill.

Operates practically the same as the Paulus drill. Has heavy base and is designed for more severe service.

Can be equipped with Rich spindle and chuck, but uses $5\frac{1}{2}$-inch instead of 7-inch flat bits.

Weight, 90 pounds.

No. S-1250. Complete with one twist bit $20.00
,, S-1251. Equipped with Rich spindle and chuck... 25.00

DRIP Protectors (see Guards, water).

DRIVE Brackets (see Brackets, iron).

DRIVERS, Screw (see also Kits, tool).



No. 10.

No. 10 Yankee Ratchet Screw Drivers.

The Yankee ratchet screw drivers operate with so little friction that the screw does not turn back with the reverse motion of the driver.

They are right, left, or rigid, according to the position of the slide in handle.

	Wt. per Doz. in Box.	
2-inch blade	1 lb. 5 oz.	per doz., $4.40
3 ,, ,,	3 lbs. 3 ,,	,, 5.60
4 ,, ,,	3 ,, 5 ,,	,, 6.10
5 ,, ,,	3 ,, 8 ,,	,, 6.60
6 ,, ,,	4 ,, 14 ,,	,, 7.80
8 ,, ,,	5 ,, 9 ,,	,, 9.00
10 ,, ,,	7 ,, 11 ,,	,, 10.50
12 ,, ,,	8 ,, 5 ,,	,, 11.60



No. 11.

No. 11 Yankee Screw Drivers.

This is an improvement on the No. 10, as the adjusting slide operates across the handle instead of in line with the blade and is not so easily displaced. The driver is also a little lighter and more compact.

	Wt. per Doz. in Box.	
2-in. blade	1 lb. 1 oz.	per doz., $4.40
3 ,, ,,	3 ,, 0 ,,	,, 5.60
4 ,, ,,	3 ,, 3 ,,	,, 6.10
5 ,, ,,	3 ,, 6 ,,	,, 6.60
6 ,, ,,	4 ,, 12 ,,	,, 7.80
8 ,, ,,	5 ,, 7 ,,	,, 9.00
10 ,, ,,	7 ,, 5 ,,	,, 10.50
12 ,, ,,	8 ,, 0 ,,	,, 11.60



No. 15.

No. 15 Yankee Ratchet Screw Drivers.

This has on its blade a knurled washer, by means of which the blade may be turned by the finger and thumb. Otherwise same as No. 10.

	Wt. per Doz. in Box.	
2-in. blade	1 lb., 6 oz.	per doz., $4.90
3 ,, ,,	1 ,, 8 ,,	,, 5.30
4 ,, ,,	1 ,, 10 ,,	,, 5.70
5 ,, ,,	1 ,, 12 ,,	,, 6.10



No. 30.

No. 30 Yankee Spiral Ratchet Screw Drivers.

May be used as a ratchet, rigid, or push-in driver, either right- or left-handed. Noiseless, operates without friction. Extreme length with bit in chuck, 13½ inches, extended 19½ inches. Weight per doz., in box, 12 lbs., 9 oz.,

per doz.,	$22.00
Extra bits (3 to a set) per doz. sets,	4.56
Chucks with 8-drill points (to use with above) per doz.,	7.50
Countersinks ,,	1.70

Electricians' Combination Screw Driver and Knife (see Knife).



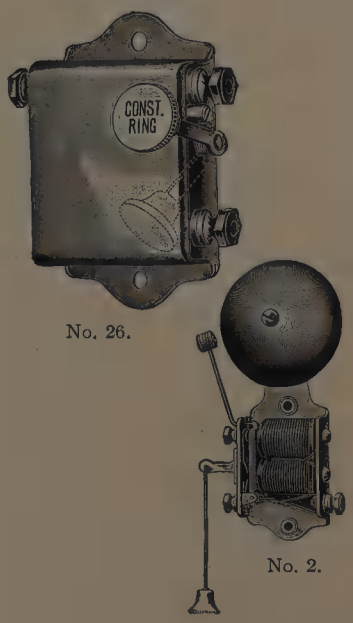
Lock Ferrule Screw Driver. Star Screw Driver. Insulated Screw Driver.



Speaking Tube Staple Driver



No. 1580. No. 1582.



No. 26. No. 2.

DRIVERS, Screw (Continued).

Lock Ferrule Screw Drivers.

These screw drivers are especially adapted for electrical and machinery work. They will do the hardest work and will not turn, twist, break, or loosen.

Machinists' Style.

No.		Per Doz.	No.		Per Doz.
258.	2 in. blade	$3.00	264.	7 in. blade	$7.00
259.	2½ ,, ,,	3.00	265.	8 ,, ,,	8.00
260.	3 ,, ,,	3.50	266.	9 ,, ,,	9.00
261.	4 ,, ,,	4.25	267.	10 ,, ,,	10.00
262.	5 ,, ,,	5.00	268.	11 ,, ,,	11.00
263.	6 ,, ,,	6.00	269.	12 ,, ,,	12.00

Cabinet Style.

No.		Per Doz.	No.		Per Doz.
250.	2½ in. blade	$3.00	254.	6½ in. blade	$6.50
251.	3½ ,, ,,	3.50	255.	8½ ,, ,,	8.00
252.	4½ ,, ,,	4.50	256.	10½ ,, ,,	9.50
253.	5½ ,, ,,	5.50	257.	12½ ,, ,,	11.00

Star Screw Drivers No. 1213.

Blade.	Rod.	Per Doz.	Blade.	Rod.	Per Doz.
2 in.	7/32 in	$1.10	7 in.	11/32 in	$1.60
3 ,,	7/32 ,,	1.20	8 ,,	3/8 ,,	1.70
4 ,,	1/4 ,,	1.25	10 ,,	3/8 ,,	2.00
5 ,,	5/16 ,,	1.40	12 ,,	3/8 ,,	2.50
6 ,,	5/16 ,,	1.50			

Insulated Screw Drivers.

These drivers are insulated with moulded mica insulation, which is one of the best insulations known. They offer the greatest protection to electricians and linemen when properly used.

No. 304.	2½ in. blade, weight, 3 oz	per doz.,	$10.95
,, 305.	3½ ,, ,, ,, 4 ,,	,,	11.50
,, 306.	4 ,, ,, ,, 4 ,,	,,	12.48
,, 307.	5 ,, ,, ,, 5 ,,	,,	18.72
,, 308.	6 ,, ,, ,, 6 ,,	,,	21.10

DRIVER, Staple.

Speaking Tube Staple Driver.

Especially formed to take 1-inch speaking tube staples.

No. S-1252. Staple driver..... each, $ .30

DRIVEWAY Crane (see Poles).

DROP, Automatic.

Continuous Ringing Attachment.

These drops are used for closing a circuit automatically, and keeping it closed as long as desired. In operation, the falling of the drop closes a local circuit until the drop is raised again.

No. 1580.	Automatic drop for battery circuit, each,	$1.70
,, 1581.	Automatic drop for magneto circuit, 80 ohms..... each,	2.50
No. 1582.	Ditto japanned iron frame and cover for battery-circuit..... each,	.90
No. 1583.	Same for magneto circuit, 80 ohms, ,,	1.50
,, 26.	Edwards drop, 4 ohms, for battery circuit..... each,	1.25
No. 26M.	Edwards drop, 80 ohms, for magneto circuit..... each,	1.75

Constant Ringing Bell No. 27.

When the circuit is closed the lever drops, throwing the bell into direct circuit with the battery, which causes the bell to ring until the circuit is broken by raising the lever. Japanned base and nickel cover.

2½ inch.	4 ohms.....	each,	$1.50
3 ,,	4 ,, ...	,,	1.55
4 ,,	4 ,, ...	,,	1.75
5 ,,	4 ,, ...	,,	3.00
6 ,,	4 ,, ...	,,	3.50

DRY Battery (see B).
DUPLEX Pulley (see P).
DUST Brush (see B).
DUSTERS.



Feather Dusters.

No. 358. Turkey Feather Dusters.

These standard dusters have 100 feathers in smaller sizes and 120 feathers in 14-in. size and over.

	Per Doz.		Per Doz.
10-in. feathers	$4.50	14-in. feathers	$8.00
11 ,, ,,	5.00	15 ,, ,,	8.50
12 ,, ,,	6.00	16 ,, ,,	9.50
13 ,, ,,	7.00	18 ,, ,,	11.50

No. 359. Turkey Car Dusters.

Extra heavy. All tail feathers.

12-in. feathers	per doz.,	$8.00
14 ,, ,,	,,	10.00
16 ,, ,,	,,	13.00



Universal Duster.

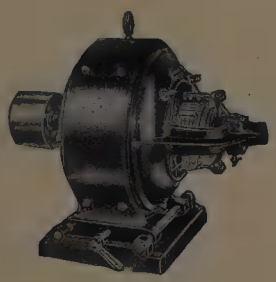
Universal Dusters (see also Bellows).

The best thing for cleaning dust out of armatures, etc. Will deliver a strong blast of air where no brush or duster will reach and with no danger of short circuits. No metal mountings.

			Weight in Oz.	List.
No. 1	$2\frac{3}{8}$ in. inside diam.,	20 in. long	$10\frac{1}{2}$	$1.50
,, 2	$2\frac{3}{4}$,, ,,	$22\frac{3}{8}$,, ,,	$13\frac{1}{2}$	2.00
,, 3	3 ,, ,,	$24\frac{3}{4}$,, ,,	$16\frac{1}{2}$	3.25
,, 4	$3\frac{1}{3}$,, ,,	$25\frac{1}{8}$,, ,,	23	5.00
,, 5	4 ,, ,,	$32\frac{1}{4}$,, ,,	$32\frac{1}{2}$	7.00

Prices of the adjustable mouthpiece of vulcanized rubber for these bellows are as follows:

No. 1. Mouthpiece, only	$ .50
,, 2. ,, ,,	.60
,, 3. ,, ,,	.60
,, 4. ,, ,,	.75
,, 5. ,, ,,	1.00



Standard Dynamo.

DYNAMOS (see Igniters, Motors, etc.).

The Standard Generators, No. S-1253.

Prices on application on Westinghouse and other makes of generators.

The prices given below are for compound wound generators, and include standard pulley, sliding base with belt tightening attachment, and wall type field regulating rheostat with each machine. In figuring lighting installation for these generators note that the following table is based on a-55 watt, 16 c.p. lamp.

Frame.	K. W.	No. of Lamps.	Speed.	Shipping Weight in Lbs.	Pulley. Diam.	Face.	List. 115 V.	230 V.
$\frac{1}{2}$	.5	9	1850	145	4	2	$75.00	$79.00
$\frac{3}{4}$	.75	13	1750	215	4	$2\frac{1}{2}$	100.00	104.00
1	1	18	1650	250	5	$2\frac{1}{2}$	125.00	130.00
$1\frac{1}{2}$	1.5	27	1550	280	5	3	140.00	147.50
2	2	36	1400	410	$5\frac{1}{2}$	$3\frac{1}{2}$	177.50	185.00
3	3	54	1350	510	6	4	222.50	232.50
4	4	73	1200	680	$6\frac{1}{2}$	4	275.00	280.00
5	5	91	1100	855	7	$4\frac{1}{2}$	313.00	320.00
$7\frac{1}{2}$	7.5	136	1000	1025	8	5	388.00	388.00
10	9	164	1100	1288	9	6	450.00	450.00
$12\frac{1}{2}$	10	182	975	1355	10	7	475.00	475.00



No. 1.

Victor Blasting Dynamo.

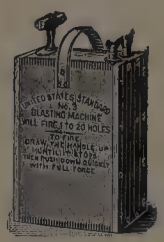
No. 1. Victor blasting dynamo. Will fire from 5 to 8 holes, weight 15 lbs., especially adapted to prospecting, well sinking, stump blasting, etc.. .each, $15.00



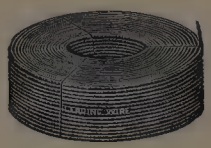
No. 3.

Pull-up Blasting Dynamos.

No. 3. Pull-up blasting dynamo; will fire from 20 to 30 holes.....each, $25.00
No. 4. Pull-up blasting dynamo; will fire from 40 to 50 holes.....each, 50.00
No. 5. Pull-up blasting dynamo; will fire from 75 to 100 holes.....each, 75.00



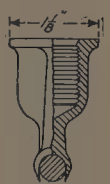
No. 3 U.S.



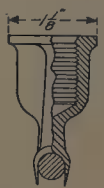
Leading Wire.



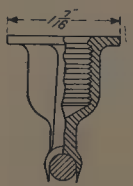
Fuses.



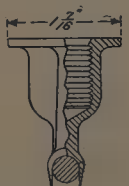
Form H.



Form J.



Form H-2.



Form J-2.



No. 16394.



No. 32562.



No. 16034.

DYNAMOS (Continued).

U. S. Standard Blasting Dynamos.

These are the standard machines for heavy work in railroad, quarrying, mining, and submarine blasting. They are made especially strong and powerful.

	Each.
No. 3. Pull-up blasting dynamo will fire 20 holes,	$25.00
,, 4. ,, ,, ,, ,, ,, 50 ,,	50.00

Fuses for Above Machines.

	Single Strength.	Double Strength.
4 ft. wires ..... per 100,	$3.00	$3.75
6 ,, ,, ... ,,	3.54	4.29
8 ,, ,, ... ,,	4.08	4.83
10 ,, ,, ... ,,	4.62	5.37
12 ,, ,, ... ,,	5.16	5.91
14 ,, ,, ... ,,	5.70	6.45
16 ,, ,, ... ,,	6.24	6.99
18 ,, ,, ... ,,	6.78	7.53
20 ,, ,, ... ,,	7.32	8.07
22 ,, ,, ... ,,	8.32	9.07
24 ,, ,, ... ,,	9.32	10.07
26 ,, ,, ... ,,	10.32	11.07
28 ,, ,, ... ,,	11.32	12.07
30 ,, ,, ... ,,	12.32	13.07
Leading wire for attaching to fuses ..... per lb.,	.40	
Connecting wire holder ..... each,	2.00	
Victor leading wire reel ..... ,,	4.00	

EARS.

Trolley Ears.

Form H ears are regular deep groove style with narrow boss; $1\frac{1}{8}$ inches diameter to fit insulated bolt suspensions.

Form J ears are extra deep groove ears with narrow boss; $1\frac{1}{8}$ inches diameter to fit insulated bolt suspensions.

Form H-2 ears are regular deep groove style with wide boss; $1\frac{7}{16}$ inches diameter to fit cap and cone suspensions.

Form J-2 ears are extra deep groove ears with wide boss; $1\frac{7}{16}$ inches diameter to fit cap and cone suspensions.

15-inch Plain Ears (tinned).

No.						Per 100.
16394.	Form H,	for No.	0	wire,	$\frac{5}{8}$ in. tap	$55.00
15022.	,, H,	,, ,,	00	,,	$\frac{5}{8}$,, ,, ...	55.00
31665.	,, H-2,	,, ,,	0	,,	$\frac{5}{8}$,, ,, ...	55.00
31667.	,, H-2,	,, ,,	00	,,	$\frac{5}{8}$,, ,, ...	55.00
34111.	,, H-2,	,, ,,	000	,,	$\frac{5}{8}$,, ,, ...	77.00
26151.	,, H-2,	,, ,,	000	,,	$\frac{3}{4}$,, ,, ...	77.00
34112.	,, H-2,	,, ,,	0000	,,	$\frac{5}{8}$,, ,, ...	77.00
19492.	,, H-2,	,, ,,	0000	,,	$\frac{3}{4}$,, ,, ...	77.00
19424.	,, J,	,, ,,	0	,,	$\frac{5}{8}$,, ,, ...	55.00
19425.	,, J,	,, ,,	00	,,	$\frac{5}{8}$,, ,, ...	55.00
32568.	,, J-2,	,, ,,	0	,,	$\frac{5}{8}$,, ,, ...	55.00
32569.	,, J-2,	,, ,,	00	,,	$\frac{5}{8}$,, ,, ...	55.00
34113.	,, J-2,	,, ,,	000	,,	$\frac{5}{8}$,, ,, ...	77.00
32566.	,, J-2,	,, ,,	000	,,	$\frac{3}{4}$,, ,, ...	77.00
34114.	,, J-2,	,, ,,	0000	,,	$\frac{5}{8}$,, ,, ...	77.00
32567.	,, J-2,	,, ,,	0000	,,	$\frac{3}{4}$,, ,, ...	77.00

12-inch Plain Ears (tinned).

32562.	Form H,	for No.	0	wire,	$\frac{5}{8}$ in. tap	$52.50
32564.	,, H,	,, ,,	00	,,	$\frac{5}{8}$,, ,, ...	52.50
32563.	,, H-2,	,, ,,	0	,,	$\frac{5}{8}$,, ,, ...	52.50
32565.	,, H-2,	,, ,,	00	,,	$\frac{5}{8}$,, ,, ...	52.50
32570.	,, J,	,, ,,	0	,,	$\frac{5}{8}$,, ,, ...	52.50
32572.	,, J,	,, ,,	00	,,	$\frac{5}{8}$,, ,, ...	52.50
32571.	,, J-2,	,, ,,	0	,,	$\frac{5}{8}$,, ,, ...	52.50
32573.	,, J-2,	,, ,,	00	,,	$\frac{5}{8}$,, ,, ...	52.50

9-inch Plain Ears (tinned).

16034.	Form H,	for No.	0	wire,	$\frac{5}{8}$ in. tap	$37.00
15157.	,, H,	,, ,,	00	,,	$\frac{5}{8}$,, ,, ...	37.00
31666.	,, H-2,	,, ,,	0	,,	$\frac{5}{8}$,, ,, ...	37.00
31668.	,, H-2,	,, ,,	00	,,	$\frac{5}{8}$,, ,, ...	37.00
32574.	,, J,	,, ,,	0	,,	$\frac{5}{8}$,, ,, ...	37.00
32576.	,, J,	,, ,,	00	,,	$\frac{5}{8}$,, ,, ...	37.00
32575.	,, J-2,	,, ,,	0	,,	$\frac{5}{8}$,, ,, ...	37.00
32577.	,, J-2,	,, ,,	00	,,	$\frac{5}{8}$,, ,, ...	37.00

EARS.

Trolley Ears (Continued).

15-inch Feeder Ears (tinned).



No. 15120.

No.						Per 100.
15120.	Form H,	for No. 0	wire,	$\frac{5}{8}$	in. tap...	$77.50
15121.	,, H,	,, ,, 00	,,	$\frac{5}{8}$	,, ,, ...	77.50
34115.	,, H-2,	,, ,, 000	,,	$\frac{5}{8}$	,, ,....	105.00
26152.	,, H-2,	,, ,, 000	,,	$\frac{3}{4}$	,, ,, ...	105.00
34116.	,, H-2,	,, ,, 0000	,,	$\frac{5}{8}$	,, ,, ...	105.00
26153.	,, H-2,	,, ,, 0000	,,	$\frac{3}{4}$	,, ,, ...	105.00

19-inch Strain or Anchor Ears (tinned).



No. 15140.

No.						Per 100.
15140.	Form H,	for No. 0	wire,	$\frac{5}{8}$	in. tap,	$100.00
15147.	,, H,	,, ,, 00	,,	$\frac{5}{8}$	,, ,,	100.00
34117.	,, H-2,	,, ,, 000	,,	$\frac{5}{8}$	,, ,,	125.00
26156.	,, H-2,	,, ,, 000	,,	$\frac{3}{4}$	,, ,,	125.00
34118.	,, H-2,	,, ,, 0000	,,	$\frac{5}{8}$	,, ,,	125.00
26157.	,, H-2,	,, ,, 0000	,,	$\frac{3}{4}$	,, ,,	125.00

8-inch Single End Strain Ears (tinned).



No. 30459.

No.				Per 100.
30459.	Strain ear for	No. 0	wire.....	$40.00
30460.	,, ,,	,, 00	,, ...	40.00
34121.	,, ,,	,, 000	,, ...	50.00
34122.	,, ,,	,, 0000	,, ...	50.00

15-inch Splicing Ears (tinned).



No. 15138.

No.						Per 100.
15138.	Form H,	for No. 0	wire,	$\frac{5}{8}$	in. tap..	$100.00
12900.	,, H,	,, ,, 00	,,	$\frac{5}{8}$	,, ,, ..	100.00
34119.	,, H-2,	,, ,, 000	,,	$\frac{5}{8}$	,, ,, ..	125.00
26154.	,, H-2,	,, ,, 000	,,	$\frac{3}{4}$	,, ,, ..	125.00
34120.	,, H-2,	,, ,, 0000	,,	$\frac{5}{8}$	,, ,, ..	125.00
26155.	,, H-2,	,, ,, 0000	,,	$\frac{3}{4}$	,, ,, ..	125.00

15-inch Ceiling Ears (tinned).



No. 33595.

No.				Per 100.
33595.	Ceiling ear for	No. 0	wire.....	$85.00
33596.	,, ,,	,, 00	,, ...	85.00
33597.	,, ,,	,, 000	,, ...	110.00
33598.	,, ,,	,, 0000	,, ...	110.00

Flexible Ears (tinned).



No. 17302.

These ears have hinged hubs to afford flexibility when used with rigid suspensions such as the Form D bracket, and the various ceiling and mining suspensions.

No.						Per 100.
17302.	Flexible ear for	No. 0	wire,	$\frac{5}{8}$	in. tap...	$110.00
19484.	,, ,,	,, ,, 00	,,	$\frac{5}{8}$	,, ,, ...	110.00

Automatic Ears.



No. 17338.



No. 17400.

The Automatic Ear is clamped on the wire by the spreading action of a special pointed stud in the suspension, for which the special insulated bolt, No. 17341, is furnished with Form G suspensions. (See Suspension.)

This ear is often very useful for temporary work, and together with the adapter, can be used with standard suspensions.

No. 17338. Automatic ear, $\frac{5}{8}$ in. tap, malleable iron, japanned.....per 100, $30.00

No. 17400. Adapter for No. 17338, $\frac{5}{8}$ in. tap and stud.....per 100, 45.00

Clamping Ears.



No. 16379.

No. 16379. Clamping ear, Form B, $\frac{5}{8}$ in. tap.... $100.00

,, 15899. ,, ,, ,, B, $\frac{7}{16}$ in. tap... 100.00

,, 41047. For Nos. 0 and 00 round wire, $\frac{5}{8}$ in. tap, malleable iron, galvanized, per 100, 32.50

No. 41048. For Nos. 0 and 00 round wire, $\frac{5}{8}$ in. tap, malleable iron, japanned, per 100, 30.00

(*Continued on next page.*)

EARS.

Trolley Ears (Continued).

Clamping Ears.

No. 41443. For Nos. 0 and 00 round wire, $\frac{5}{8}$ in. tap, composition ..... per 100, $62.50

No. 41049. For Nos. 000 and 0000 round wire, $\frac{5}{8}$ in. tap, malleable iron, galvanized ..... per 100, 32.50

No. 41444. For Nos. 000 and 0000 round wire, $\frac{5}{8}$ in. tap, composition ... per 100, 62.50

Ears for Grooved Wire.

The form of the grooved trolley wire permits the use of a clamping ear which holds the wire with perfect security, and at the same time offers no obstruction to the passage of the trolley wheel.

The lips of the ears are so shaped as to give a four-point bearing in the grooves which prevents any tendency of the wire to roll out of the ear as a result of tortional or transverse stress.

The 5-inch and 7-inch plain ears are listed in both malleable iron and composition.

The feeder and strain ears are composition with lips tinned for soldering to the wire.

All grooved wire ears, except the splicing ears, are interchangeable on Nos. 00, 000, and 0000 wire.



No. 19432.

5-inch Ears for Grooved Wire.

The 5-in. plain ears have $1\frac{1}{8}$-in. hub flanges, and are interchangeable on all suspensions.

No.		Per 100.
19432	$\frac{5}{8}$ in. tap, malleable iron, japanned	$30.00
37804	$\frac{5}{8}$,, ,, ,, ,, galvanized	32.50
27627	$\frac{5}{8}$,, ,, composition	62.50



No. 34123.

7-inch Ears for Grooved Wire.

The 7-in. plain ears being designed especially for use with Nos. 000 and 0000 grooved wires, are extra heavy throughout and have $1\frac{7}{16}$-in. hub flanges which make them particularly suitable for Form D and Form H suspensions.

No.		Per 100.
34123	$\frac{5}{8}$-in. tap, malleable iron, japanned	$35.00
37805	$\frac{5}{8}$,, ,, ,, ,, galvanized	37.50
34124	$\frac{5}{8}$,, ,, composition	85.00
11291	$\frac{3}{4}$,, ,, malleable iron, japanned	35.00
37806	$\frac{3}{4}$,, ,, ,, ,, galvanized	37.50
27628	$\frac{3}{4}$,, ,, composition	85.00



No. 19433.

Curve Ears for Grooved Wire.

The curve ears may also be advantageously employed in straight line construction, especially with Nos. 000 and 0000 wire, for which No. 34125 and No. 19494 are recommended.

No. 19433 has $1\frac{1}{8}$-in. hub flange and is interchangeable on all suspensions.

No. 34125 and No. 19494 are heavier in design than No. 19433, and have $1\frac{7}{16}$-in. hub flange.



No. 34125.

No.		Per 100.
19433	$\frac{5}{8}$-in. tap, malleable iron, japanned	$42.50
37807	$\frac{5}{8}$,, ,, ,, ,, galvanized	45.00
34125	$\frac{5}{8}$,, ,, ,, ,, japanned	42.50
37808	$\frac{5}{8}$,, ,, ,, ,, galvanized	45.00
19494	$\frac{3}{4}$,, ,, ,, ,, japanned	42.50
37685	$\frac{3}{4}$,, ,, ,, ,, galvanized	45.00



No. 19435.

Feeder Ears for Grooved Wire.

No. 19435 has $1\frac{1}{8}$-in. hub flange and is interchangeable on all suspensions.

No. 34126 and No. 21486 are heavier in design than No. 19435, and have $1\frac{7}{16}$-in. hub flange.



No. 34126.

No.		Per 100.
19435	$\frac{5}{8}$-in. tap, composition	$105.00
34126	$\frac{5}{8}$,, ,, ,,	105.00
21486	$\frac{3}{4}$,, ,, ,,	105.00





No. 39877.



No. 19434.



No. 34127.



No. 19436.

EARS.

Trolley Ears (Continued).

12-inch Clinch Ears for Grooved Wire.

The clinch ear for grooved wire is of composition metal and similar to the General Electric Company's regular round wire soldered ears except that the lips, instead of being tapered to a knife edge for peening around the wire, are formed to fit into the grooves of the wire.

			Per 100.
No. 39877.	Form H,	for 00 wire, $\frac{5}{8}$-in. tap,	$52.50
,, 39880.	,, H-2, ,,	00 ,, $\frac{5}{8}$,, ,,	52.50
,, 40943.	,, H-2, ,,	000 ,, $\frac{5}{8}$,, ,,	67.50
,, 40944.	,, H-2, ,,	000 ,, $\frac{3}{4}$,, ,,	67.50
,, 40939.	,, H-2, ,,	0000 ,, $\frac{5}{8}$,, ,,	67.50
,, 40940.	,, H-2, ,,	0000 ,, $\frac{3}{4}$,, ,,	67.50

Strain Ears for Grooved Wire.

No. 19434 has $1\frac{1}{8}$-in. hub flange, and is interchangeable on all suspensions.

No. 34127 and No. 21485 are heavier in design than No. 19434 and have $1\frac{7}{16}$-in. hub flange.

No. 19434.	For grooved wire, $\frac{5}{8}$ in. tap, composition.....per 100,	$125.00
No. 34127.	For grooved wire, $\frac{5}{8}$ in. tap, composition.....per 100,	125.00
No. 21485.	For grooved wire, $\frac{3}{4}$ in. tap, composition.....per 100,	125.00

Splicing Ears for Grooved Wire.

The Splicing Ears for grooved wire are similar in design to the standard splicing sleeves, but are of composition metal and have hubs for attachment of suspensions.

No. 19436.	For No. 00 grooved wire, $\frac{5}{8}$-in. tap.....per 100,	$175.00
No. 21487.	For No. 00 grooved wire, $\frac{3}{4}$-in. tap.....per 100,	175.00
No. 19437.	For No. 000 grooved wire, $\frac{5}{8}$-in. tap.....per 100,	175.00
No. 21488.	For No. 000 grooved wire, $\frac{3}{4}$-in. tap.....per 100,	175.00
No. 19438.	For No. 0000 grooved wire, $\frac{5}{8}$-in. tap.....per 100,	175.00
No. 21454.	For No. 0000 grooved wire, $\frac{3}{4}$-in. tap.....per 100,	175.00

EASY Car Pusher (see Pusher).
ECCENTRIC Wire Clamps (see Come-Alongs).
ECONOMY Arm (see Arms, cross).
EDISON Cut-Outs (see C).
EDISON Battery (see B).
ELBOWS, Conduit (see Conduits).
ELBOWS, Gas (see Stems, fixture).
ELBOWS, Speaking Tube (see Tube).
ELECTRA Carbons (see C).
ELECTRIC Alarm Clock (see Outfit).
ELECTRIC Chafing Dish (see Dishes).
ELECTRIC Heating Apparatus (see Stoves, Irons, Dishes, Boilers, etc.).
ELECTRIC Lock (see L).
ELECTRIC Matting (see M).
ELECTRIC Radiator (see R).
ELECTRICIANS' Scissors (see S).
ELECTRICIANS' Tool Kit (see K).
ELECTRODE (see Coils, induction).
ELECTROGRIP (see Adjusters).

ELECTROLIER Insulating Joint (see J).
ELECTROLIERS (see Fixtures).
ELECTRO-Mechanical Gongs (see G).
ELECTROTHERM (see Pads, heating).
EMERY Cloth (see C).
ENAMELAC.

No. 7 Enamelac.

A quick-drying, glossy black, insulating varnish for general use around electrical power houses. It is used for switchboards, junction boxes, controller cases, conduits, transformer cases, etc. It is a sure protection against battery acid fumes and battery jar slops. It stands well when applied on inside work. We do not claim extreme waterproof qualities for it. It can be applied on dirty surfaces, hot steam pipes, or live boiler fronts with equal facility. A case containing one dozen quart pails affords a convenient and economical way of purchasing enamelac. The pails having a stamped tight-fitting lid, each one may be opened with a coin and hermetically sealed again without special device. This paint has no foul odor.

In barrels	net, per gal.,	$ .60
,, cans, 1, 2, 5, or 10 gals	,, ,, ,,	.75
,, cases of 1 doz. quart pails	,, ,, case,	3.00

ENAMELED Food Pan (see Dish, electric chafing).
ENCLOSED Arc Lamp (see L).
EQUIPOISE Telephone Holders (see Brackets, telephone).
ESCUTCHEON (see Pushes).
EXCELSIOR.

Excelsior.

100 lb. bale	per lb.,	$ .03
50 ,, ,,	,,	.04

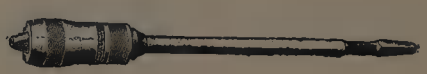
EXPANDING Wire Guards (see G).
EXTENSION Bell (see B).
EXTENSION, Bit.



No. S-1254.

Balz Patent Bit Extension No. S-1254.

12 in. long	each,	$1.50
18 ,, ,,	,,	1.75
24 ,, ,,	,,	2.00



No. 1.

Barber Extension Bit Holder No. 1.

Made in 12, 15, 18, 21, and 24 in. over all.

Price, all lengths ..... per doz., $15.00



No. 3.

Extension Bit Holder No. 3.

This bit extension is composed of four parts or pieces.

First, a shell with an inside shoulder, so shaped as to adjust itself to the shoulders of auger bits of varying sizes and shapes.

Second, a socket with a square taper hole into which the square shanks of bits are to be inserted.

Third, a knurled nut attached to the shell in such a manner as to draw its shoulders down against the shoulder of the bit holding it securely in the socket.

Fourth, a shank or rod to which the square socket is soldered and pinned.

The extreme outside diameter of the shell is something under $\frac{5}{8}$ of an inch, so the extreme tool will follow a $\frac{5}{8}$ or larger bit into a hole.

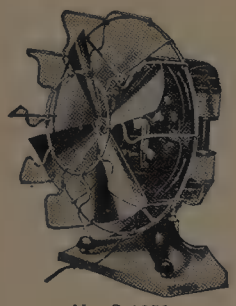
Polished and nickel-plated. Put up one in a paper box.

Made in lengths of 12, 15, 18, and 21 in.	per doz.,	$18.00
,, ,, 24 in.	,,	21.00

EXTENSION Tap (see T).
EYE Bolts (see B).



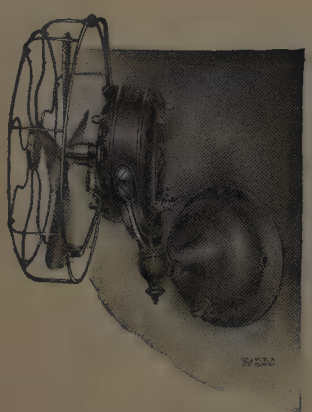
No. S-1255.



No. S-1256.



12-inch Desk Fan.



12-inch Bracket Fan.

FACTORY Hood (see H).

FANS, see following headings:

Fans, Battery.
,, Bracket and Desk.
,, Ceiling.
,, Column.
,, Outfits (see Outfits, fan).
,, Ventilating.

FANS, Battery (see also Motors, toy, and Outfits, fan).

Edison Battery Fans.

7-inch No. S-1255.

An iron clad motor with 7-in. fan and guard suitable for use with three cells of Type S Edison battery.....each, $9.25

9-inch No. S-1256.

A ball bearing motor with fan and guard for use with four cells of Type S Edison battery.....each, 13.50

FANS, Bracket and Desk.

G. E. 12-inch Desk and Bracket Fans Alternating Current.

Swivel and trunnion frame.
Six-point regulating switch.
Full speed, 60 cycles, 1,500 R. P. M.; 125 cycles, 1,470 R. P. M.
Finish, black enamel and dipped brass.
Self-aligning and self-oiling bearings of brass composition.
Weight of desk fan 21 pounds, boxed 40 pounds.
Weight of bracket fan 22 pounds, boxed 41 pounds.

Special finishes, royal blue and gold, wine red and gold, white and gold, extra, per motor..... $1.50

Desk.	Bracket.	Cycles.	Voltage.	Desk.	Bracket.
No. 34017	No. 36328	60	100/115	$29.00	$29.00
,, 34018	,, 36329	60	190/220	31.00	31.00
,, 34019	,, 36330	125/140	100/115	29.00	29.00
,, 34020	,, 36331	125/140	190/220	31.00	31.00

G. E. 16-inch Desk and Bracket Fans Alternating Current.

Swivel and trunnion frame.
Six-point regulating coil and switch.
Full speed, 60 cycles, 1,570 R. P. M.; 125 cycles, 1,390 R. P. M.
Finish, black enamel and dipped brass.
Self-aligning and self-oiling bearings, made of composition metal.
Weight of desk fan 32½ pounds, boxed 56½ pounds.
Weight of bracket fan 33½ pounds, boxed 57½ pounds.

Special finishes, royal blue and gold, wine red and gold, white and gold, extra per motor..... $1.50

Desk.	Bracket.	Cycles.	Voltage.	Desk.	Bracket.
No. 34021	No. 36332	60	100/115	$36.00	$36.00
,, 34022	,, 36333	60	190/220	38.00	38.00
,, 34023	,, 36334	125/140	100/115	36.00	36.00
,, 34024	,, 36335	125/140	190/220	38.00	38.00

G. E. 8-inch Telephone Booth Fan Alternating Current.

Designed especially for telephone booths. Can be turned in any direction; noiseless; suspended on springs; slow speed. Finish, black enamel and brass.

May be used in series with lamp, thereby both lighting and cooling the telephone booth.

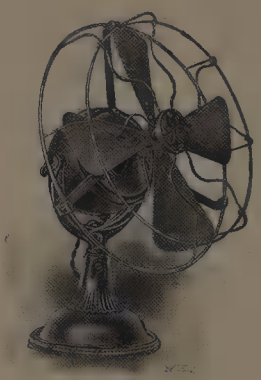
Snap switch and lamp not included in price.

	Voltage.	Cycles.	
No. 87763	110	60	each, $18.00
,, *86791	55	60	,, 18.00
,, *86813	60	140	,, 18.00

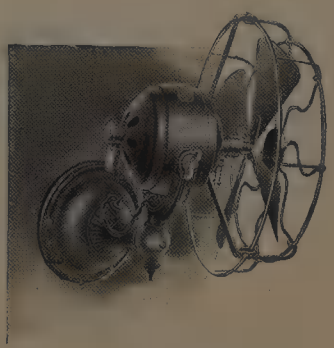
* For operation only in series with one 52-volt, 8-candle-power, 32-watt lamp on 104-volt circuit.



Compensator.



12-inch Bracket and Desk Fan.



16-inch Bracket and Desk Fan.



8-inch Booth Fan.

FANS, Bracket and Desk (Continued).

G. E. 12-inch Bracket and Desk Fans Alternating Current (Low Frequency).

Swivel and trunnion frame.
Full speed, 25 cycles, 1,700 R. P. M.; 40 cycles, 1,900 R. P. M.
Finish, black enamel and dipped brass.
Self-aligning and self-oiling bearings of brass composition.
Weight of desk fan 19½ pounds, boxed, 38½ pounds.
Weight of bracket fan 20½ pounds, boxed, 39½ pounds.
Special finishes, royal blue and gold, wine red and gold, white and gold, extra, per motor $1.50

Desk.	Bracket.	Cycles.	Volts.	Desk.	Bracket.
No. 34267	No. 36546	25	110	$33.00	$33.00
,, 33594	,, 36545	40	125	33.00	33.00

G. E. Compensators for Alternating Current Fans 60-Cycle and Upwards.

Providing for use of a 52-volt fan on a 104-volt circuit or a 104-volt fan on a 52-volt circuit.
Enameled slate base, nickeled binding-posts.

No. 3657. 12-in. fan motor compensator, complete.....
No. 41596. 16 in. fan motor compensator, complete..... } Prices on Application.

G. E. 12-inch Bracket and Desk Fans, Direct Current.

Swivel and trunnion frame.
Four-point regulating coil and switch.
Three running speeds, 900, 1,200 and 1,500 R. P. M.
Finish, black japan and lacquered brass.
Self-aligning and self-oiling bearings of brass composition.
Weight of desk fan 21¼ pounds, boxed 35 pounds.
Weight of bracket fan 22¼ pounds, boxed 36 pounds.
Special finishes, royal blue and gold, wine red and gold, white and gold, extra price $1.50

Desk.	Bracket.	Volts.	Desk.	Bracket.
No. 34003	No. 36324	115	$24.00	$24.00
,, 34004	,, 36325	230	26.00	26.00

G. E. 16-inch Bracket and Desk Fans, Direct Current.

Swivel and trunnion.
Four-point regulating coil and switch.
Three running speeds, 900, 1,200 and 1,500 R. P. M.
Finish, black japan and lacquered brass.
Self-aligning and self-oiling bearings of brass composition.
Weight of desk fan 31 pounds, boxed 51 pounds.
Weight of bracket fan 32 pounds, boxed 52 pounds.
Special finishes, royal blue and gold, wine red and gold, white and gold, extra, price $1.50

Desk.	Bracket.	Volts.	Desk.	Bracket.
No. 34005	No. 36326	115	$32.50	$32.50
,, 34006	,, 36327	230	34.50	34.50

List Prices of Accessories.

12-in. fans only	each,	$1.50
16 ,, ,, ,,	,,	2.75
12-in. guards only	,,	2.00
16 ,, ,, ,,	,,	2.75
Straight adapters	,,	.70
Angular adapters for 12-in. fans	,,	.70
,, ,, ,, 16 ,, ,,	,,	.70

G. E. 8-inch Telephone Booth Fans.

Designed especially for telephone booths. Can be turned in any direction, noiseless, suspended on springs, slow speed. Finish, black enamel and brass. May be used in series with lamp, thereby lighting and cooling the telephone booth.
Snap switch and lamp not included in price. Speed 1,200 R.P.M.

No.	Voltage.	Price.
86790	115	$18.00
*86792	18	18.00

* For operation only in series with one 110-volt, 16-candle-power, 55-watt lamp on 115-volt circuit.



Revolving Fan.

FANS, Bracket and Desk (Continued).

Revolving Wood Fan Motors.

The light weight of the revolving motor permits its operation suspended from almost any lamp socket, on wall bracket, ceiling fixture, or desk stand, or from special extension rods without lamp socket connection. The shell of the motor is made of aluminum and the suspension shell is also of aluminum, making a total weight of about 3½ lbs. for the complete motor. The standard finish is black, except the brass fan and guard.

No.					Each.
81947	115 volts,	direct current,	8 in.	.....	$22.50
87761	110 ,,	140 cycles A.C.,	8 ,,	.....	22.50
81949	52 ,,	140 ,,	8 ,,	.....	22.50
87779	110 ,,	60 ,,	8 ,,	.....	22.50
81951	52 ,,	60 ,,	8 ,,	.....	22.50

FANS, Ceiling.

G. E. Ceiling Fans, Direct Current, Three Speed.

Four-point regulating coil and switch speeds, 120, 165, and 205 revolutions per minute.

Finish, streaked oxidized copper.

Four wooden blades, 58-in. sweep, interchangeable.

Enclosed, dust proof.

Standard length, 54 in. over all.

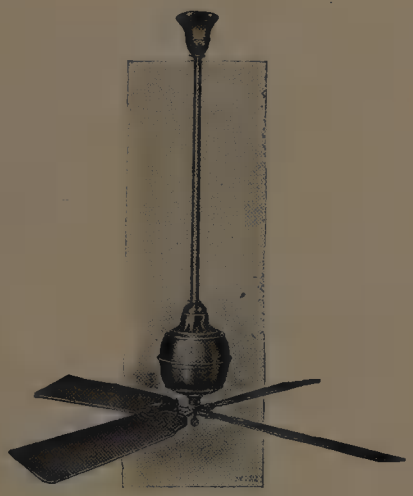
Self-aligning and self-oiling bearings of brass composition.

Weight, complete, 59 lbs.

Polished brass or brush brass, extra $1.00

		Each.
No. 37642	4-blade fan, 115 volts	$46.00
,, 37643	4 ,, ,, 230 ,, ...	49.00

NOTE. — These motors can be tapped and wired for electrolier attachments if specially ordered.



D. C. Three-Speed Fan.

G. E. Ceiling Fans, Direct Current, Single Speed.

Running speed, 200 revolutions per minute.

Finish, black japanned.

Four wooden blades, 56-in. sweep, interchangeable.

Enclosed, dustproof.

Standard length, 54 in. over all.

Self-aligning and self-oiling bearings of brass composition.

Weight, complete, 52 lbs.

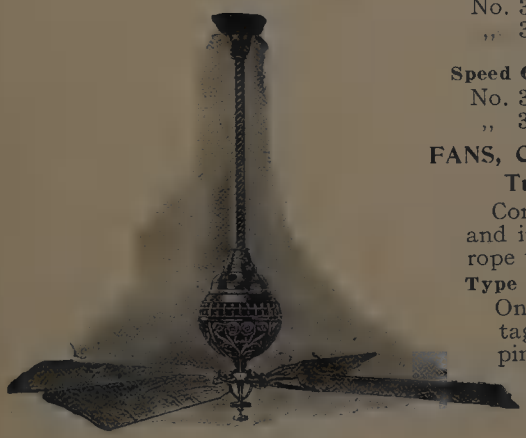
Royal blue and gold, wine red and gold, or white and gold finish, extra $1.00

If more than one speed is desired a speed controller can be furnished which will give approximately 120, 160, and 200 revolutions per minute.

		Each.
No. 34007	4-blade fan, 115 volts	$33.00
,, 34008	4 ,, ,, 230 ,, ...	36.00

Speed Controllers.

		Each.
No. 34038.	Speed controller, 115 volts	$5.00
,, 34039.	,, ,, 230 ,, ...	5.50



Type A Fan.

FANS, Ceiling.

Tuerk Ceiling Fans, Alternating Current.

Complete with starting switch, ceiling hook, canopy, and insulated hanger, also stem covered with brass rope tubing for ceilings up to 12 ft.

Type A Two-Blade Fans (adjustable blades).

One speed, 175 R.P.M. Cycles, 60 to 140. Voltage, 50 to 150. Spread, 60 in. Watts, 105. Shipping weight, 68 lbs.

Bronze, bower barff or ox. copper ....each, $60.00
Nickel or brush brass ..... ,, 65.00
Ivory and gold ..... ,, 66.00



Type A Electrolier Fan.



Type B Fan.



Type C.

FANS, Ceiling.

Tuerk Ceiling Fans, Alternating Current
(Continued).

Type A Four-Blade Fans (two blades adjustable).

Bronze, bower barff or ox. copper, each, $63.00
Nickel or brush brass ..... ,, 67.50
Ivory and gold ..... ,, 69.00

Extras.

Windings for 40 or 50 cycles, extra, each, $4.00
Windings for 150 volts or over, extra, each, 2.00
Stems for ceilings over 12 ft., extra, per ft., 1.20
Electrolier attachment, 2 light.. each, 4.80
,, ,, 3 ,, .. ,, 5.00
,, ,, 4 ,, .. ,, 5.20
,, ,, 5 ,, .. ,, 5.40
,, ,, 6 ,, .. ,, 5.60
(Without sockets or shade holders.)

Type B Two-Blade Fans.

Two speeds, 175 R.P.M., 110 watts, and 150 R.P.M., 80 watts. Cycles, 60 to 66. Voltage, 50 to 150. Spread, 60 in. Shipping weight, 65 lbs.

Bronze finish ..... each, $50.00
Oxidized copper finish ..... ,, 50.00

Type B Four-Blade Fans.

Bronze finish ..... each, $54.00
Oxidized copper finish ..... ,, 54.00

Extras.

Windings for 40 or 50 cycles, extra, each, $4.00
Windings for 150 or 220 volts, extra, each, 2.00
Stems for ceilings over 12 ft., extra, per ft., 1.20
Electrolier attachment, 2 light... each, .60
,, ,, 4 ,, ... ,, 1.20

Type C Two-Blade Fans.

Two speeds. Two blades 56-in. sweep four blades 52-in. sweep. Speed, 225 revolutions per minute. Complete with starting switch, ceiling hook, canopy, and insulated hanger only, no stem. Shipping weight, 77 lbs., 60 to 66 cycles, 50 to 150 volts.

Oxidized copper finish ..... each, $51.00

Type C Four-Blade Fan.

Oxidized copper finish ..... each, $55.00

Extras.

	Each.
Windings for 40 or 50 cycles, extra ..	$2.00
,, ,, 150 to 250 volts, ,, ..	2.00
Stems covered with rope tubing finished to match, for ceilings up to 12 ft. in height ..... per stem,	2.00
Electrolier attachments, 2 light	.60
,, ,, 4 ,, ...	1.20



Type D.



Type E.



Column Fan.

FANS, Ceiling.

Tuerk Ceiling Fans, Alternating Current (Continued).

Type D Deflector Fan.

For use over dining-tables, in billiard rooms, restaurants, etc. Four steel blades run on the inside of case. They have a sweep of 14 in.

Five speeds ranging from 500 to 1050 revolutions per minute. Consumes 125 watts only at maximum speed.

Complete with starting switch, ceiling hook, canopy, and insulated hanger, also stem covered with brass tubing for ceilings up to 12 ft. Shipping weight, 62 lbs.

Oxidized copper finish ..... each, $42.00

Extras.

	Each.
Windings for 40 or 50 cycles, extra . .	$4.00
,, ,, 150 to 220 volts, ,, . .	2.00
Stems for ceilings over 12 ft., ,, per ft.	1.20
Electrolier attachment, 2 light	4.00
,, ,, 4 ,, ...	4.60
,, ,, 6 ,, ...	5.00

Type E Two-Blade Fan.

Two speeds, 175 R.P.M. and 140 R.P.M. Watts at high speed, 110. Shipping weight, 65 lbs.

Complete with starting switch, ceiling hook, canopy, insulated hanger, and stem covered with brass rope tubing for 12-ft. ceiling.

Oxidized copper finish ..... each, $48.00

Type E Four-Blade Fan.

Oxidized copper finish ..... each, $52.00

Extras.

	Each.
Windings for 40 or 50 cycles, extra . .	$4.00
,, ,, 150 to 250 volts, ,, . .	2.00
Stems for ceilings over 12 ft., ,, per ft.	1.20
Electrolier attachment, 2 light	.60
,, ,, 4 ,, ...	1.20

FANS, Column.

Tuerk Alternating Current Column Fans.

Noiseless, absolutely rigid, and simple in construction. Consumes 110 watts at highest speed.

Standard finish, oxidized copper with plain black column.

Two speeds operated by switch with small chain hanging from bottom. Sixty to 140 cycles. Fifty to 150 volts.

Column Fan, Two-Blade.

	Each.
Oxidized copper with plain black col'n,	$80.00
Bronze finish throughout	80.00
Column covered with rope tubing, finished in oxidized copper, nickel, or brass	88.00

Column Fan, Four-Blade.

	Each.
Oxidized copper with plain black col'n,	$84.00
Bronze finish throughout	84.00
Column covered with rope tubing, finished in oxidized copper, nickel, or brass	92.00

Extras.

	Each.
Windings for 40 or 50 cycles, extra . .	$4.00
,, ,, 150 to 220 volts, ,, . .	2.00
Oxidized copper nipples, ,, . .	.30

FAN Outfits (see Outfits).



16-Inch Alternating Current Exhaust Fan.



16-Inch Direct Current Exhaust Fan.

FANS, Ventilating.

G. E. Ventilating Fans.

			List Price.
Alternating Current Fans.			
No. 35307	12-in. diam. fan, 25 cycles,	110 volts	$27.00
,, 35308	12 ,, ,, ,, 40 ,,	125 ,,	27.00
,, 34025	12 ,, ,, ,, 60 ,,	100–115 ,,	23.00
,, 34026	12 ,, ,, ,, 60 ,,	190–220 ,,	25.00
,, 34029	16 ,, ,, ,, 60 ,,	100–115 ,,	30.00
,, 34030	16 ,, ,, ,, 60 ,,	190–220 ,,	32.00
Controllers for Above.			
No. 35309	12-in. diam. fan, 25 cycles,	110 volts	$3.50
,, 35310	12 ,, ,, ,, 40 ,,	125 ,,	3.50
,, 28604	12 ,, ,, ,, 60 ,,	100–115 ,,	3.50
,, 26376	12 ,, ,, ,, 60 ,,	190–220 ,,	4.00
,, 28608	16 ,, ,, ,, 60 ,,	100–115 ,,	4.00
,, 26381	16 ,, ,, ,, 60 ,,	190–220 ,,	4.50
Direct Current Fans.			
No. 34009	12-in. diam. fan	115 volts	$23.00
,, 34010	12 ,, ,, ,,	230 ,,	25.00
,, 34011	16 ,, ,, ,,	115 ,,	31.00
,, 34012	16 ,, ,, ,,	230 ,,	33.00
Controllers for Above.			
No. 34034	12-in. diam. fan	115 volts	$4.00
,, 34035	12 ,, ,, ,,	230 ,,	4.50
,, 34036	16 ,, ,, ,,	115 ,,	4.50
,, 34037	16 ,, ,, ,,	230 ,,	5.00

NOTE. — We are prepared to furnish prices on application on all standard makes and sizes of ventilating and exhaust fans.

FEATHERWEIGHT Spreader (see Arms, cross).

FEEDER Bolt (see Suspensions).

FEEDER, Sand (see Box, sand).

FEEDER, Wire (see Wires and Cables).

FEEDER Yoke (see Suspensions).

FEED Wire Splicers (see Splicers).

FEED Wire Insulators (see I).

FENDERS, Car.

Prices on application.

FIBRE Adjusters (see A).

FIBRE, Hard.

Hard Sheet Fibre.

Furnished in red, black, or gray. Red ordinarily sent if color is not specified.

	500 Lbs. or more.	100 to 500 Lbs.	Less than 100 Lbs.
Under $\frac{1}{64}$ in.	$ .25 lb.	$ .30 lb.	$ .35 lb.
,, $\frac{1}{32}$ to $\frac{1}{64}$ in. inc.	.20 ,,	.25 ,,	.30 ,,
,, $\frac{1}{16}$,, $\frac{1}{32}$,, ,,	.18 ,,	.22 ,,	.25 ,,
From $\frac{1}{16}$,, $\frac{1}{2}$,, ,,	.15 ,,	.18 ,,	.20 ,,
Over $\frac{1}{2}$,, $\frac{3}{4}$,, ,,	.18 ,,	.25 ,,	.30 ,,
,, $\frac{3}{4}$,, 1 ,, ,,	.25 ,,	.35 ,,	.45 ,,
,, 1 ,, $1\frac{1}{4}$,, ,,	.30 ,,	.40 ,,	.50 ,,
,, $1\frac{1}{4}$,, 2 ,, thick at special prices.			

Approximate Weight of Sheet Fibre.

Thickness, 2 inches	about 256 lbs.
,, $1\frac{3}{4}$,,	,, 224 ,,
,, $1\frac{1}{2}$,,	,, 192 ,,
,, $1\frac{1}{4}$,,	,, 160 ,,
,, 1 ,,	,, 128 ,,
,, $\frac{7}{8}$,,	,, 112 ,,
,, $\frac{3}{4}$,,	,, 96 ,,
,, $\frac{5}{8}$,,	,, 80 ,,
,, $\frac{9}{16}$,,	,, 72 ,,
,, $\frac{1}{2}$,,	,, 64 ,,

(*Continued on next page.*)

FIBRE, Hard.

Hard Sheet Fibre (Continued).

Approximate Weight of Sheet Fibre.

Thickness,	7/16 inches	about	56 lbs.
,,	3/8 ,,	,,	48 ,,
,,	5/16 ,,	,,	40 ,,
,,	1/4 ,,	,,	32 ,,
,,	3/16 ,,	,,	24 ,,
,,	1/8 ,,	,,	16 ,,
,,	1/16 ,,	,,	8 ,,
,,	1/32 ,,	,,	4 ,,
,,	1/64 ,,	,,	2 ,,

A square foot 1 inch thick weighs about 7¼ lbs. Specific gravity about 1.4.

Leatheroid.

Similar to hard fibre in looks, but tougher and able to stand more bending without cracking.
Prices on application.

Round Hard Fibre Rods.

Round rods are turned and are within .010 of an inch to the size given.



Round Hard Fibre Rods.

Diam.,	Per Foot.	Diam.,	Per Foot.
1/32 in.	$ .15	3/4 in.	$ .50
1/8 ,,	.15	7/8 ,,	.60
3/16 ,,	.15	1 ,,	.75
1/4 ,,	.15	1 1/8 ,,	1.00
5/16 ,,	.16	1 1/4 ,,	1.25
3/8 ,,	.18	1 3/8 ,,	2.00
7/16 ,,	.22	1 1/2 ,,	3.00
1/2 ,,	.26	1 5/8 ,,	4.00
9/16 ,,	.30	1 3/4 ,,	6.00
5/8 ,,	.35	2 ,,	8.00
11/16 ,,	.42		

FIBRE, Hard.

Hard Rolled Fibre Tubing.

Thickness of Wall.



Hard Rolled Fibre Tubing.

Inside Diameter.	1/16	3/32	1/8	5/32	3/16	1/4
1/8	$ .20	$ .30	$ .40			
3/16	.20	.30	.40			
1/4	.10	.14	.18	$ .22	$ .26	
5/16	.10	.15	.19	.24	.28	
3/8	.11	.16	.21	.26	.31	
7/16	.11	.16	.22	.28	.33	
1/2	.12	.18	.24	.30	.36	$ .48
9/16	.13	.20	.26	.32	.39	.52
5/8	.14	.21	.28	.35	.42	.56
11/16	.15	.23	.30	.37	.45	.60
3/4	.16	.24	.32	.40	.48	.64
13/16	.17	.26	.34	.42	.51	.68
7/8	.18	.27	.36	.45	.54	.72
15/16	.19	.29	.38	.47	.57	.76
1	.20	.30	.40	.50	.60	.80
1 1/8	.22	.33	.44	.55	.66	.88
1 1/4	.24	.36	.48	.60	.72	.96
1 3/8	.26	.39	.52	.65	.78	1.04
1 1/2	.28	42	.56	.70	.84	1.12
1 5/8	.30	.45	.60	.75	.90	1.20
1 3/4	.32	.48	.64	.80	.96	1.28
1 7/8	.34	.51	.68	.85	1.02	1.36
2	.36	.54	.72	.90	1.08	1.44

The above are prices per foot in lengths of about 2 to 3 feet.
Prices on other sizes quoted on application.

FIBRE, Hard (Continued.)

Hard or Flexible Fibre Washers and Discs.

Thickness.

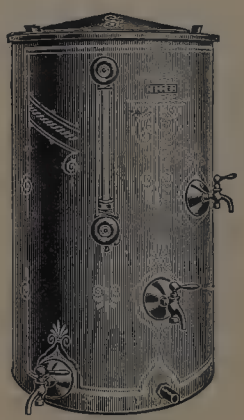
Outside diam., In.	1/16	3/32	1/8	3/16	1/4	3/8
½ per 100,	$ .30	$ .40	$ .50	$ .60	$ .75	$1.20
5/8 ,,	.34	.45	.55	.70	.90	1.40
3/4 ,,	.40	.52	.63	.85	1.10	1.60
7/8 ,,	.47	.61	.74	1.02	1.35	2.00
1 ,,	.55	.72	.88	1.24	1.65	2.40
1⅛ ,,	.64	.85	1.05	1.50	2.00	3.00
1¼ ,,	.74	1.00	1.25	1.80	2.40	3.60
1⅜ ,,	.85	1.17	1.48	2.14	2.85	4.20
1½ ,,	.97	1.35	1.75	2.50	3.35	5.00
1¾ ,,	1.25	1.80	2.30	3.40	4.40	6.80
2 ,,	1.60	2.30	3.00	4.50	6.00	9.00
2¼ ,,	2.00	2.90	3.70	5.50	7.20	11.00
2½ ,,	2.50	3.60	4.65	6.80	9.00	13.60
2¾ ,,	3.00	4.80	5.50	8.10	10.60	16.20
3 ,,	3.50	5.10	6.70	10.00	13.10	20.00
3¼ ,,	4.00	5.90	7.80	11.40	15.00	22.00
3½ ,,	4.70	6.90	9.20	13.60	18.00	26.00
3¾ ,,	5.30	7.80	10.20	15.00	20.00	30.00
4 ,,	6.00	8.70	11.50	17.30	23.00	34.00
4¼ ,,	6.70	9.80	12.80	18.90	25.00	37.00
4½ ,,	7.50	11.00	14.50	21.70	29.00	42.00
4¾ ,,	8.30	12.10	16.00	24.00	32.00	48.00
5 ,,	9.30	13.70	18.00	27.00	35.80	54.00
5¼ ,,	10.70	16.00	21.00	31.00	41.00	62.00
5½ ,,	12.40	18.70	25.00	37.00	49.20	74.00
5¾ ,,	14.20	21.10	28.00	41.50	55.00	82.00
6 ,,	16.20	24.10	31.90	47.50	63.30	94.00
7 ,,	19.50	29.00	38.50	57.50	76.50	114.00
8 ,,	25.00	37.20	49.50	74.00	98.50	148.00
9 ,,	31.50	46.00	61.00	91.00	121.50	182.00
10 ,,	36.50	54.50	72.50	108.50	144.50	216.00
11 ,,	48.70	72.70	95.00	144.50	192.70	288.00
12 ,,	58.40	87.20	116.00	173.60	231.20	346.00

Other thicknesses made at corresponding prices.
For smooth or rounded edges an extra charge will be made.

FIELD Rheostats (see Rheostats).

FIELDING Rosettes (see R).

FILTER, Oil.



Cross Oil Filter.

The Cross Oil Filter.

The bottom chamber is filled with pure warm water. The oil passes downward through a waste chamber into the warm water in the base, upward through the water, and up through a second waste chamber. In the water chamber it is spread out on the lower surface of a series of discs in so thin a film that all impurities are eliminated by gravity.

Size.	Filtering Capacity per Day of 24 Hours (Gallons).	Diameter (In.).	Height (In.).	Capacity Pure Oil Chamber (Gallons).	Net Weight (Pounds).	Gross Weight (Pounds).	Diameter of Crate (Inches).	Height of Crate (Inches).	Price.
No. 1....	15 to 20	18	30	11	45	89	24	32	$29.50
,, 2....	3 ,, 5	12	26	3	24	57	19	28	19.50
,, 3....	30 ,, 40	24	36	20	82	159	33	40	60.00
,, 4....	50 ,, 60	30	54	37	163	275	54	57	75.00
,, 5....	70 ,, 90	33	56	49	184	285	54	59	90.00
,, 6....	100 ,, 120	35	60	60	208	380	66	61	110.00
,, 7....	120 ,, 150	35	74	75	233	425	66	76	130.00
,, 8....	150 ,, 200	40	76	90	340	660	72	76	165.00
,, 9....	200 ,, 250	44	80	110	425	725	76	82	200.00
,, 10....	250 ,, 300	48	86	130	525	850	80	88	250.00
,, 11....	300 ,, 400	52	92	175	650	1000	80	96	300.00
,, 12....	400 ,, 500	56	98	250	800	1200	80	102	350.00

FINGERS, Controller.

K Controller Contact Fingers.

All General Electric contact fingers for series parallel controllers are made from pure wrought copper which has been found to resist the action of the arc better than cast copper or copper alloys.

The springs are made of phosphor bronze carefully selected for physical characteristics. Where necessary because of current to be carried these springs are reënforced with flexible copper strips, and if properly adjusted for drop on leaving the cylinder segments, these fingers should be subject to no deterioration in normal service beyond the natural wear at the contact.

Those more important fingers which are subjected to the severest conditions have been greatly improved by the substitution of drop forgings for punchings, by which means a deeper section and consequently a greater stiffness in the shank, and a greater wearing depth at the contact point have been secured.



Controller Finger.

Catalogue Numbers for Single Fingers.

Controller.	Operating.	Width.	List Price, Each.	Reversing.	Width.	List Price, Each.
K	37946	1 in.	$ .20	37947	$\frac{5}{8}$ in.	$ .12
K-2	37946	1 ,,	.20	37947	$\frac{5}{8}$,,	.12
K-4	37949	1 ,,	.29	*37930	$\frac{5}{8}$,,	.16
				†37929	$\frac{5}{8}$,,	.16
K-6	37911	1 ,,	.23	37900	$\frac{5}{8}$,,	.12
K-7	37924	1 ,,	.25	*37930	$\frac{5}{8}$,,	.16
				†37929	$\frac{5}{8}$,,	.16
K-7B	37924	1 ,,	.25	*37930	$\frac{5}{8}$,,	.16
				†37929	$\frac{5}{8}$,,	.16
K-8	37924	1 ,,	.25	37930	$\frac{5}{8}$,,	.16
K-9	33802	1 ,,	.20	37947	$\frac{5}{8}$,,	.12
K-10	33802	1 ,,	.20	37947	$\frac{5}{8}$,,	.12
K-11	37924	1 ,,	.25	37930	$\frac{5}{8}$,,	.16
K-12	37924	1 ,,	.25	*37930	$\frac{5}{8}$,,	.16
				†37929	$\frac{5}{8}$,,	.16
K-13	37904	1 ,,	.25	37749	$\frac{5}{8}$,,	.16
K-14	37904	1 ,,	.25	37749	$\frac{5}{8}$,,	.16
K-21	37949	1 ,,	.29	37930	$\frac{5}{8}$,,	.16
K-27	37924	1 ,,	.25	37930	$\frac{5}{8}$,,	.16
	37922	$\frac{3}{4}$,,	.23			
K-28	33802	1 ,,	.20	33602	$\frac{5}{8}$,,	.15
K-29	37911	1 ,,	.23	37900	$\frac{5}{8}$,,	.12
	37912	$\frac{3}{4}$,,	.20			

* 43 Deg. Angle spring.

† Straight spring.

Catalogue Numbers for Sets of Fingers.

Controller.	Operating.	List Price.	Reversing.	List Price.
K	38090	$2.20	38088	$ .96
K-2	38091	2.40	38088	.96
K-4	38093	3.48	38094	2.56
K-6	38095	3.45	38039	1.92
K-7	38096	2.75	38094	2.56
K-7B	38096	2.75	38094	2.56
K-8	38096	2.75	38097	1.28
K-9	38098	2.20	38088	.96
K-10	38098	2.20	38088	.96
K-11	38096	2.75	38097	1.28
K-12	38096	2.75	38094	2.56
K-13	38083	5.25	38084	3.84
K-14	38083	5.25	38404	5.12
K-21	38093	3.48	38097	1.28
K-27	38407	3.11	38097	1.28
K-28	38408	2.80	38409	2.40
K-29	38406	3.52	38039	1.92

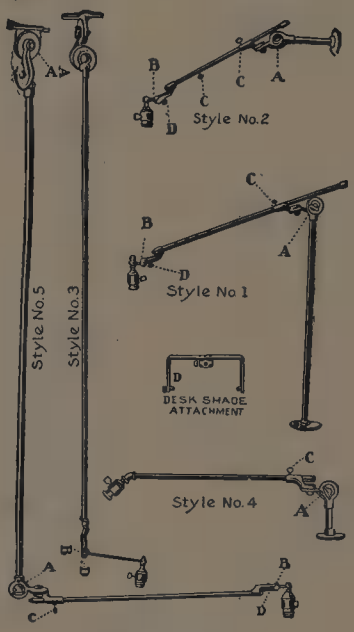
FIRE Alarm Box (see B).

FIRE Pots and Furnaces (see Torches).

FISH Wire (see W).

FITTINGS (see Fixtures, electric and gas).

FIXTURES, see following headings:
Fixtures, Adjustable.
,, Electric and Gas.
,, Marine.
,, Pole and Wall.
,, Street.



Morse Fixtures.

FIXTURES, **Adjustable** (see also Brackets, adjustable, and Lamps, portable).

Morse Adjustable Arm Fixtures.

Made in five styles, to order only. Especially for use in mills, factories, shops, and draughting rooms. Black enamel or aluminum finish.

A, Right angle joint.
B, Ball and socket joint.
C, Thumb screw for telescoping.
D, Cam lever for ball socket.

Style 1	2 ft. x 2 ft.	each,	$2.00
,, 2	6 in. x 2 ft.	,,	2.00
,, 3	7 ft. x 6 in	,,	2.50
,, 4	6 in. x 1 ft. 8 in.	,,	1.75
Desk shade attachment, extra		,,	.50
Style 5	7. ft x 2 ft	,,	3.00
For extra length, add per foot			.10

White's Adjustable Fixtures.

These fixtures are strongly constructed and are designed for heavy use in shop, factory, draughting room, and office. We recommend black finish for shops and oxidized copper for office fixtures. Prices do not include socket, shade, or wiring.

White's Style A Ceiling Fixtures.

For shops, factories, mills, draughting-rooms, etc. Ball and socket base-joint, swivelling and sliding cone-joint, and wrist-joint. The proper length of main arm for all Style A fixtures is found by subtracting 6½ feet from the height of ceiling. Polished brass, old brass, or black bronze finish 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.


Style A.

Main Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
No. 2A. Light Weight.			
3 ft.	x 2 ft.	$2.00	$3.30
3½ ,,	x 2 ,,	2.10	3.45
No. 1A. Regular Weight.			
4 ft.	x 2½ ft.	$2.25	$3.70
4½ ,,	x 2½ ,,	2.35	3.85
5 ,,	x 2½ ,,	2.45	4.00
5½ ,,	x 2½ ,,	2.55	4.15
6 ,,	x 2½ ,,	2.65	4.30
6½ ,,	x 2½ ,,	2.75	4.45
7 ,,	x 2½ ,,	2.85	4.60
7½ ,,	x 2½ ,,	2.95	4.75
No. XA. Heavy Weight.			
8 ft.	x 3 ft.	$3.30	
8½ ,,	x 3 ,,	3.40	
9 ,,	x 3 ,,	3.50	
9½ ,,	x 3 ,,	3.60	
10 ,,	x 3 ,,	3.70	
10½ ,,	x 3 ,,	3.80	
No. XXA. Extra Heavy Weight.			
11 ft.	x 3½ ft.	$4.10	
11½ ,,	x 3½ ,,	4.20	
12 ,,	x 3½ ,,	4.30	
12½ ,,	x 3½ ,,	4.40	
13 ,,	x 3½ ,,	4.50	
13½ ,,	x 3½ ,,	4.60	
14 ,,	x 3½ ,,	4.70	
14½ ,,	x 3½ ,,	4.80	
15 ,,	x 3½ ,,	4.90	
15½ ,,	x 3½ ,,	5.00	
16 ,,	x 3½ ,,	5.10	



Style A C.

Style AR.



Style AW.

FIXTURES, Adjustable (Continued).

White's Style AC Ceiling Fixtures.

Similar to Style A, but arranged to attach directly to a conduit outlet box. Provision is made for wiring through the main arm directly into the outlet box. Base joint separable, the annular part being first securely screwed on the insulating joint in the outlet-box and the wiring attachment made with the fixture; the ball and socket part of joint is then secured to the annular part by three bolts.

Polished brass, old brass, or black bronze finishes, add 10% to list of nickel-plated finish. Black finish sent unless otherwise ordered.

No. 1AC. Regular Weight.

Main Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
3 ft.	x 2 ft.	$2.75	$4.35
3½ ,,	x 2 ,,	2.85	4.50
4 ,,	x 2½ ,,	3.00	4.70
4½ ,,	x 2½ ,,	3.10	4.85
5 ,,	x 2½ ,,	3.20	5.00
5½ ,,	x 2½ ,,	3.30	5.15
6 ,,	x 2½ ,,	3.40	5.30
6½ ,,	x 2½ ,,	3.50	5.45
7 ,,	x 2½ ,,	3.60	5.60
7½ ,,	x 2½ ,,	3.70	5.75

White's Style AR Ceiling Fixtures.

Similar to Style A, but with base arranged to straddle the rosette and large side openings for the entrance and egress of the wiring in either cleat or moulding work. Insulation is provided for running the cord from the rosette down through the main arm.

Polished brass, old brass, or black bronze finishes, add 10 per cent to list price of nickel plated finish.

No. 1AR. Regular Weight.

Main Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
3 ft.	x 2 ft.	$2.40	$3.85
3½ ,,	x 2 ,,	2.50	4.00
4 ,,	x 2½ ,,	2.65	4.20
4½ ,,	x 2½ ,,	2.75	4.35
5 ,,	x 2½ ,,	2.85	4.50
5½ ,,	x 2½ ,,	2.95	4.65
6 ,,	x 2½ ,,	3.05	4.80
6½ ,,	x 2½ ,,	3.15	4.95
7 ,,	x 2½ ,,	3.25	5.10
7½ ,,	x 2½ ,,	3.35	5.25

White's Style AW Ceiling Fixtures.

The Style AW fixture should be used wherever it is desired to run the wire through the main arm as well as the lamp arm of the fixture. It is especially well adapted also for use with concealed wiring other than conduit. If the ceiling is plastered, a wooden disc considerably larger in diameter than the base-joint should first be securely attached thereto.

Polished brass, old brass or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

No. 1AW. Regular Weight.

Main Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
3 ft.	x 2 ft.	$2.45	$3.85
3½ ,,	x 2 ,,	2.55	4.05
4 ,,	x 2½ ,,	2.70	4.25
4½ ,,	x 2½ ,,	2.80	4.40
5 ,,	x 2½ ,,	2.90	4.55
5½ ,,	x 2½ ,,	3.00	4.70
6 ,,	x 2½ ,,	3.10	4.85
6½ ,,	x 2½ ,,	3.20	5.00
7 ,,	x 2½ ,,	3.30	5.15
7½ ,,	x 2½ ,,	3.40	5.30

FIXTURES, Adjustable (Continued).

White's Style 1K Ceiling Fixtures.



Style 1K.

This style has full range of movement in every direction, but is especially designed for use in stock and packing rooms, or over machinery and work where the principal adjustments are down and up — at once into position, or up out of the way. By reason of the middle arm, these fixtures have a range over a great area. The cord runs through all three arms, insuring perfect protection. The disc joint is fitted with a powerful compensating spring, which nicely balances the whole.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

No. 1K. Regular Weight.

Height of Room.	Main Arm.	Middle Arm.	Lamp Arm.	Black Finish. Price.	N. P. or x. Cop. Price.
8 ft.	1 ft.	x 1½ ft.	x 2 ft.	$3.00	$4.85
8½ ,,	1½ ,,	x 1½ ,,	x 2 ,,	3.10	5.00
9 ,,	2 ,,	x 2 ,,	x 2½ ,,	3.35	5.30
9½ ,,	2½ ,,	x 2 ,,	x 2½ ,,	3.45	5.45
10 ,,	3 ,,	x 2 ,,	x 2½ ,,	3.55	5.60
10½ ,,	3½ ,,	x 2½ ,,	x 3 ,,	3.80	5.85
11 ,,	4 ,,	x 2½ ,,	x 3 ,,	3.90	6.00
11½ ,,	4½ ,,	x 2½ ,,	x 3 ,,	4.00	6.15

No. 1XK. Heavy Weight.

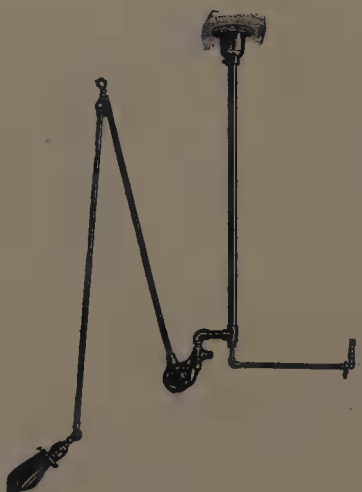
12 ft.	5 ft.	x 3 ft.	x 3½ ft.	$4.60	$6.65
12½ ,,	5½ ,,	x 3 ,,	x 3½ ,,	4.70	6.80
13 ,,	6 ,,	x 3 ,,	x 3½ ,,	4.80	6.95
13½ ,,	6½ ,,	x 3 ,,	x 3½ ,,	4.90	7.10
14 ,,	7 ,,	x 3 ,,	x 3½ ,,	5.00	7.25

White's Style 2K Combination Ceiling Fixtures.

This fixture follows the lines of the No. 1K, but in addition is provided with one fixed gas-burner, which is so placed as not to interfere in the least with the movement of the adjustable electric light.

Above prices include gas-cocks and burners.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.



Style 2K.

No. 2K. Regular Weight.

Height of Room.	Main Arm.	Middle Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
8 ft.	1 ft.	x 1½ ft.	x 2 ft.	$4.35	$6.50
8½ ,,	1½ ,,	x 1½ ,,	x 2 ,,	4.45	6.65
9 ,,	2 ,,	x 2 ,,	x 2½ ,,	4.70	6.95
9½ ,,	2½ ,,	x 2 ,,	x 2½ ,,	4.80	7.10
10 ,,	3 ,,	x 2 ,,	x 2½ ,,	4.90	7.25
10½ ,,	3½ ,,	x 2½ ,,	x 3 ,,	5.15	7.55
11 ,,	4 ,,	x 2½ ,,	x 3 ,,	5.25	7.70
11½ ,,	4½ ,,	x 2½ ,,	x 3 ,,	5.35	7.85

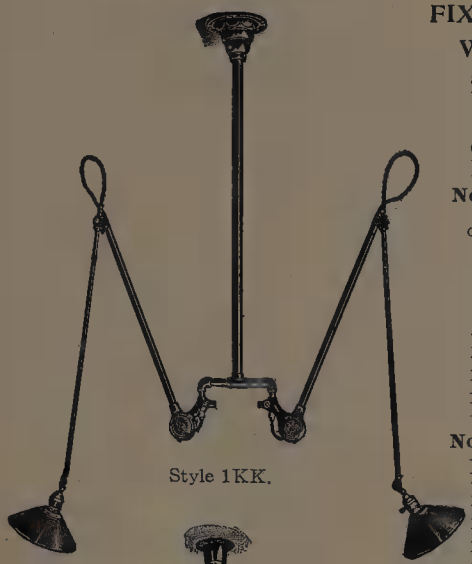
No. 2XK. Heavy Weight.

12 ft.	5 ft.	x 3 ft.	x 3½ ft.	$6.00	$8.40
12½ ,,	5½ ,,	x 3 ,,	x 3½ ,,	6.10	8.55
13 ,,	6 ,,	x 3 ,,	x 3½ ,,	6.20	8.70
13½ ,,	6½ ,,	x 3 ,,	x 3½ ,,	6.30	8.85
14 ,,	7 ,,	x 3 ,,	x 3½ ,,	6.40	9.00

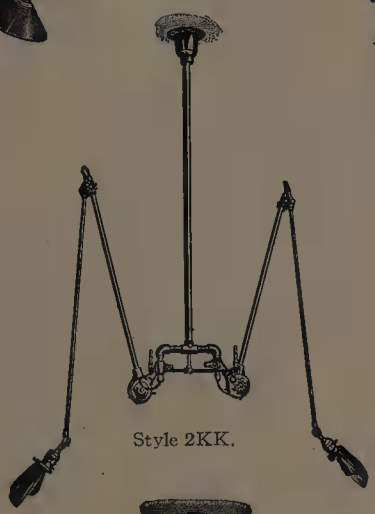
White's Style 1KK Ceiling Fixtures.

The two-light ceiling fixtures are exceptionally useful devices. They have an immense range and permit the lamps to be brought with ease into any position over the largest desk or table. They are particularly well adapted for use over draughting tables, cutting and design boards, counters and show-cases. Owing to the unrestricted

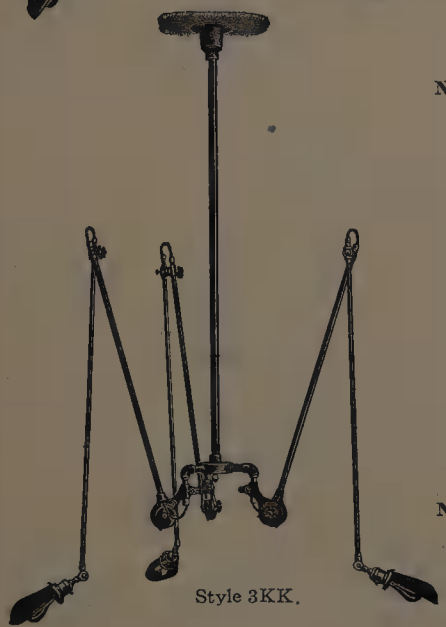
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Style 1KK.



Style 2KK.



Style 3KK.

FIXTURES, Adjustable.

White's Style 1=KK Ceiling Fixtures (Continued).

adjustability of the lamp arms, the lamps can be brought close together or used separately, as desired.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

No. 1KK. Regular Weight. Height of Room.	Main Arm.	Middle Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox Cop. Price.
8 ft.	1 ft.	x 1½ ft.	x 2 ft.	$6.10	$9.10
8½ ,,	1½ ,,	x 1½ ,,	x 2 ,,	6.20	9.25
9 ,,	2 ,,	x 2 ,,	x 2½ ,,	6.50	9.80
9½ ,,	2½ ,,	x 2 ,,	x 2½ ,,	6.60	9.95
10 ,,	3 ,,	x 2 ,,	x 2½ ,,	6.70	10.10
10½ ,,	3½ ,,	x 2½ ,,	x 3 ,,	7.00	10.85
11 ,,	4 ,,	x 2½ ,,	x 3 ,,	7.10	10.95
11½ ,,	4½ ,,	x 2½ ,,	x 3 ,,	7.20	11.10
No. 1XKK. Heavy Weight.					
12 ft.	5 ft.	x 3 ft.	x 3½ ft.	$8.00	$12.00
12½ ,,	5 ,,	x 3 ,,	x 3½ ,,	8.15	12.20
13 ,,	5½ ,,	x 3 ,,	x 3½ ,,	8.30	12.40
13½ ,,	6 ,,	x 3 ,,	x 3½ ,,	8.45	12.60
14 ,,	6½ ,,	x 3 ,,	x 3½ ,,	8.60	12.80

White's Style 2KK Ceiling Fixtures.

These two styles of fixtures are similar in every way to the Styles 1KK and 1XKK fixtures, respectively, except that they have two fixed gas-burners in addition. This is a very desirable feature where full reliance cannot be placed on continuous service from the electric current.

Above prices include gascocks and burners.

Polished brass, old brass or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

No. 2KK. Regular Weight. Height of Room.	Main Arm.	Middle Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
8 ft.	1 ft.	x 1½ ft.	x 2 ft.	$7.50	$10.50
8½ ,,	1½ ,,	x 1½ ,,	x 2 ,,	7.60	10.65
9 ,,	2 ,,	x 2 ,,	x 2½ ,,	7.90	11.20
9½ ,,	2½ ,,	x 2 ,,	x 2½ ,,	8.00	11.35
10 ,,	3 ,,	x 2 ,,	x 2½ ,,	8.10	11.50
10½ ,,	3½ ,,	x 2½ ,,	x 3 ,,	8.40	12.05
11 ,,	4 ,,	x 2½ ,,	x 3 ,,	8.50	12.20
11½ ,,	4½ ,,	x 2½ ,,	x 3 ,,	8.60	12.35
No. 2XKK. Heavy Weight.					
12 ft.	5 ft.	x 3 ft.	x 3½ ft.	$9.40	$13.25
12½ ,,	5½ ,,	x 3 ,,	x 3½ ,,	9.55	13.45
13 ,,	6 ,,	x 3 ,,	x 3½ ,,	9.70	13.65
13½ ,,	6½ ,,	x 3 ,,	x 3½ ,,	9.85	13.85
14 ,,	7 ,,	x 3 ,,	x 3½ ,,	10.00	14.05

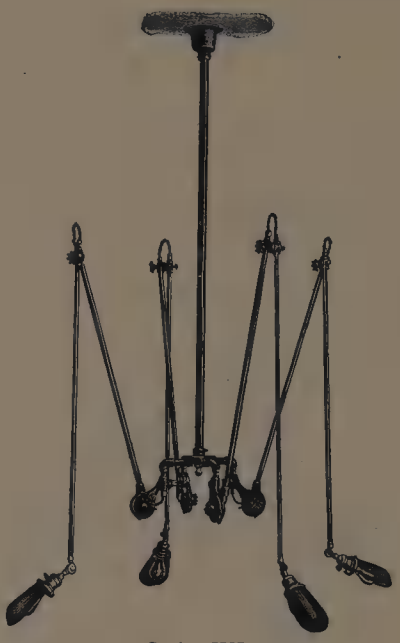
White's Style 3KK Ceiling Fixtures.

There is a demand for adjustable electric ceiling fixtures having more than two lights. For such requirements, our new Styles 3KK and 4KK fixtures are admirably suited. They are very strongly and carefully made, have full adjustability in all directions, and are very durable. Wiring is easily and quickly effected through the bottom of the drum, which is fitted with removable cover.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

No. 3KK. Regular Weight. Height of Room.	Main Arm.	Middle Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
8 ft.	1 ft.	x 1½ ft.	x 2 ft.	$9.00	$13.00
8½ ,,	1½ ,,	x 1½ ,,	x 2 ,,	9.15	13.20
9 ,,	2 ,,	x 2 ,,	x 2½ ,,	9.60	14.00

(*Continued on next page.*)



Style 4KK.

FIXTURES, Adjustable.

White's Style 3KK Ceiling Fixtures
(Continued).

No. 3KK Regular Weight.

Height of Room.	Main Arm.	Middle Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
9½ ft.	2½ ft.	x 2 ft.	x 2½ ft.	$ 9.75	$14.20
10 ,,	3 ,,	x 2 ,,	x 2½ ,,	9.90	14.40
10½ ,,	3½ ,,	x 2½ ,,	x 3 ,,	10.35	15.20
11 ,,	4 ,,	x 2½ ,,	x 3 ,,	10.50	15.40
11½ ,,	4½ ,,	x 2½ ,,	x 3 ,,	10.65	15.60

No. 3XKK. Heavy Weight.

12 ft.	5 ft.	x 3 ft.	x 3½ ft.	$11.65	$17.00
12½ ,,	5½ ,,	x 3 ,,	x 3½ ,,	11.80	17.20
13 ,,	6 ,,	x 3 ,,	x 3½ ,,	11.95	17.40
13½ ,,	6½ ,,	x 3 ,,	x 3½ ,,	12.10	17.60
14 ,,	7 ,,	x 3 ,,	x 3½ ,,	12.25	17.80

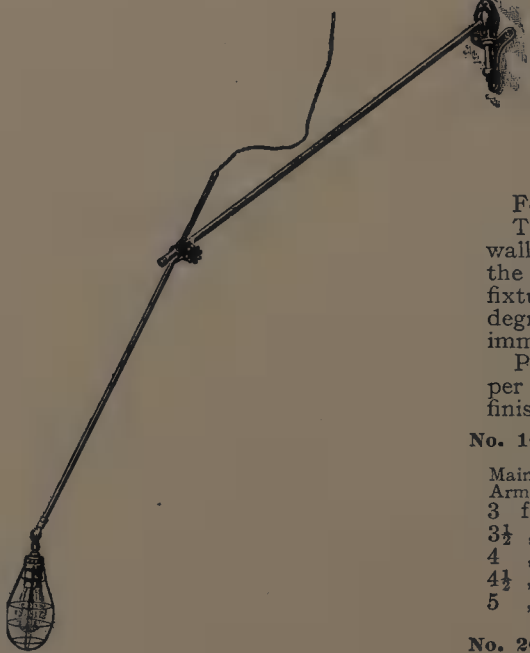
White's Style 4KK Ceiling Fixtures.

Where it is desirable to cover at once all parts of a large area, style 4KK fixture will be found of great service. The four adjustable electric arms are securely attached to the ceiling by one strong support, thus greatly simplifying wiring and setting up in preference to employing several separate adjustable fixtures to accomplish same results. For use in surgeries we can furnish these fixtures in white enamel if desired.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

No. 4KK. Regular Weight.

Height of Room.	Main Arm.	Middle Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
8 ft.	1 ft.	x 1½ ft.	x 2 ft.	$11.75	$16.75
8½ ,,	1½ ,,	x 1½ ,,	x 2 ,,	11.90	16.95
9 ,,	2 ,,	x 2 ,,	x 2½ ,,	12.50	18.00
9½ ,,	2½ ,,	x 2 ,,	x 2½ ,,	12.65	18.20
10 ,,	3 ,,	x 2 ,,	x 2½ ,,	12.80	18.40
10½ ,,	3½ ,,	x 2½ ,,	x 3 ,,	13.40	19.45
11 ,,	4 ,,	x 2½ ,,	x 3 ,,	13.55	19.65
11½ ,,	4½ ,,	x 2½ ,,	x 3 ,,	13.70	19.85



Style C.

No. 4XKK. Heavy Weight.

12 ft.	5 ft.	x 3 ft.	x 3½ ft.	$14.90	$21.50
12½ ,,	5½ ,,	x 3 ,,	x 3½ ,,	15.05	21.70
13 ,,	6 ,,	x 3 ,,	x 3½ ,,	15.20	21.90
13½ ,,	6½ ,,	x 3 ,,	x 3½ ,,	15.35	22.10
14 ,,	7 ,,	3 ,,	x 3½ ,,	15.50	22.30

White's Style C Wall Fixtures.

For extensions up to 8 feet.

This fixture is of the design of Style A, fitted for wall attachment. The ball-and-socket joint at the base is seated in a cone bearing so that the fixture can be swung through more than 180 degrees as well as up and down, thus securing an immense range.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

No. 1C. Regular Weight.

Main Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
3 ft.	x 3 ft.	$2.40	$4.00
3½ ,,	x 3 ,,	2.50	4.15
4 ,,	x 3 ,,	2.60	4.30
4½ ,,	x 3 ,,	2.70	4.45
5 ,,	x 3 ,,	2.80	4.60

No. 2C. Light Weight.

2½ ft. x 2½ ft.	$2.25	$3.75



Style G.

FIXTURES, Adjustable (Continued).

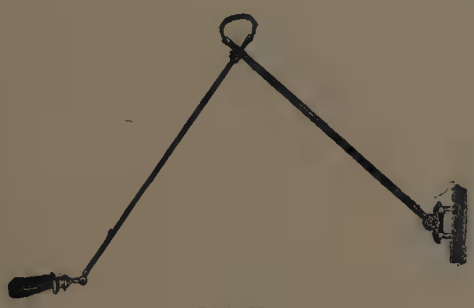
White's Style G Wall Fixtures.

For extensions up to 14 feet from the wall or post.

Our Style G fixtures are designed to secure extra strength of base joint, even greater than that of Style C fixtures. They are carefully insulated to carry cord through both upper and lower arms, thus affording perfect protection throughout the whole length. We recommend these fixtures to the trade as the strongest wall bracket on the market to-day, without exception.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

No. 2G. Light Weight. Main Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
1½ ft.	x 1½ ft.	$2.50	$3.70
2 ,,	x 2 ,,	2.65	3.90
2½ ,,	x 2 ,,	2.75	4.05
No. 1G. Regular Weight.			
2½ ft.	x 2½ ft.	$2.85	$4.30
3 ,,	x 3 ,,	3.00	4.50
3½ ,,	x 3 ,,	3.10	4.65
4 ,,	x 3 ,,	3.20	4.80
4½ ,,	x 3 ,,	3.30	4.95
5 ,,	x 3 ,,	3.40	5.10
5½ ,,	x 3 ,,	3.50	5.25
6 ,,	x 3 ,,	3.60	5.40
6½ ,,	x 3 ,,	3.70	5.65
No. XG. Heavy Weight.			
7 ft.	x 3 ft.	$4.00	
7½ ,,	x 3 ,,	4.10	
8 ,,	x 3 ,,	4.20	
8½ ,,	x 3 ,,	4.30	
No. XXG. Extra Heavy Weight.			
9 ft.	x 3½ ft.	$4.70	
9½ ,,	x 3½ ,,	4.80	
10 ,,	x 3½ ,,	4.90	
10½ ,,	x 3½ ,,	5.00	



Style H.



Style H Base Joint.

White's Style H Wall Fixture.

This fixture is the same as Style G, with the exception of the base joint, which permits the upper arm to be turned up or down into a vertical position parallel to the wall. This gives still more adjustability. The fixture can be folded up against the wall at once from any position and at any angle. In the finer finishes Style H is an ideal fixture for dentists, oculists, physicians, and others with similar requirements.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

No. 2H. Light Weight. Main Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
1½ ft.	x 1½ ft.	$2.65	$3.90
2 ,,	x 2 ,,	2.80	4.10
2½ ,,	x 2 ,,	2.90	4.25
No. 1H. Regular Weight.			
2½ ft.	x 2½ ft.	$3.05	$4.50
3 ,,	x 3 ,,	3.20	4.70
3½ ,,	x 3 ,,	3.30	4.85
4 ,,	x 3 ,,	3.40	5.00
4½ ,,	x 3 ,,	3.50	5.15
5 ,,	x 3 ,,	3.60	5.30



Style 1D.

Style B.

FIXTURES, **Adjustable** (Continued).

White's Style B Wall Fixtures.

This is a light form of wall fixture useful over benches, desks, etc. It has a ball-and-socket base joint, and cone and wrist joint, giving a considerable range of adjustability.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

No. 2B. Light Weight. Main Arm.	Lamp Arm.	Black Finish. Price.	N. P. or Ox. Cop. Price.
1½ ft.	x 1½ ft.	$1.70	$3.00
2 ,,	x 1½ ,,	1.80	3.10
2½ ,,	x 2 ,,	1.95	3.25
3 ,,	x 2½ ,,	2.10	3.40
3½ ,,	x 2½ ,,	2.20	3.50
4 ,,	x 2½ ,,	2.30	3.60

White's Style 1D Bench Fixtures.

This style of fixture is for direct attachment to the bench, table, or desk, and is especially adapted for quickly placing the lamp in any desired position through a considerable range while one is seated at work. It is a very convenient and useful appliance for bookkeepers, sewing-machine operatives, die-makers, jewelers, and the like. When preferred, a base for side attachment can be furnished in place of the regular base shown in the cut. This fixture is also made with insulated upright for wiring up through the base, as listed below. The regular size has a 22-inch upright, 7-inch crank arm, and 18-inch lamp arm.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

	Black Finish. Price.	N. P. or Ox. Cop. Price.
Same as shown in cut	$2.30	$3.75
With insulated upright	2.55	4.00



Style 2D.

White's Style 2D Bench Fixtures.

This fixture has the same adjustability as Style No. 1D, but in addition is equipped with gas-burner. Provision is made for carrying the wire through the upright. The regular size has a 28-inch upright, 7-in. crank arm, and 18-inch lamp arm.

Above prices include gas cocks and burners.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

	Black Finish. Price.	N. P. or Ox. Cop. Price.
Bench fixture, each	$3.50	$5.00



Style 2DD.

White's Style 1DD and 2DD Bench Fixtures.

Exceptionally convenient and useful where the work is spread over a considerable area on the bench or large desk; or equally well adapted to those requirements where it is preferable that two persons should use one fixture. Twenty-eight-inch upright, 7-inch crank arm, and 18-inch lamp arm. Cut shows Style 2DD.

Prices for No. 2DD include gas cocks and burners.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

	Black Finish.	N. P. or Ox.Cop.
Style 1DD, two adjustable electric lights, no gas-burner	$4.50	$6.50
Style 2DD, two adjustable electric lights, one fixed gas-burner	5.25	7.25



Style 1N.

FIXTURES, Adjustable (Continued).

White's Style 1N Table Fixture.

The fixture is attached beneath the table by means of a flat toggle joint controlled by a thumb screw which may be turned slightly to allow the fixture to be drawn out into position, or the joint may be opened so that the fixture can be entirely removed from the table. When not in use, the fixture folds back on a hook, flat underneath the table, entirely out of the way.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

	Black Finish.	N. P. or Ox.Cop.
Style 1N.....	$3.25	$4.50

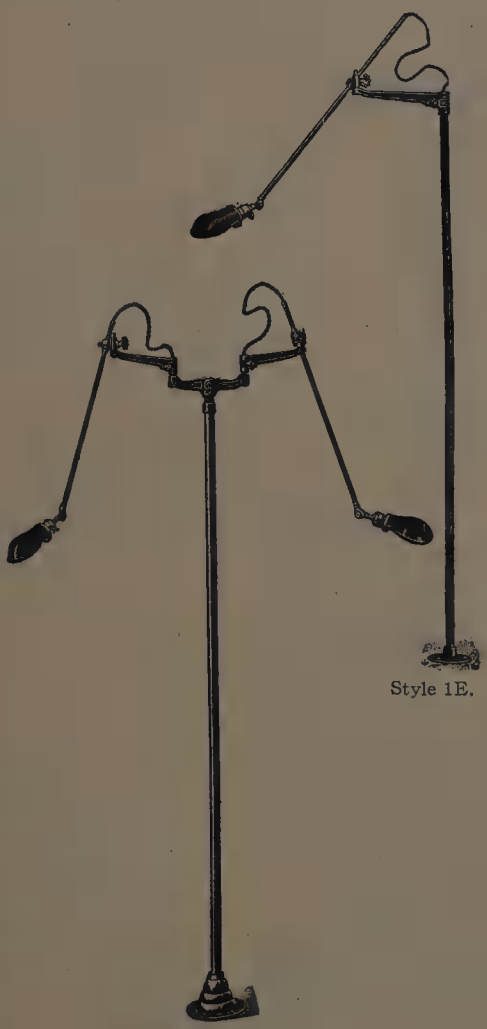
White's Style 1E Floor Fixtures.

It is at times necessary to lead wires from the floor to the lamp. For such needs we manufacture our Style E floor fixture. It is similar in appearance to Style D, but has heavier and stronger parts. The upright is insulated and arranged to carry the cord. The fixture is well adapted for use with machinery in shops having extremely high ceilings, or in the finer finishes, for use with desks, tables, and benches.

The prices for No. 2E include gas cocks and burners.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for nickel plated finish. Black finish sent unless otherwise ordered.

Upright Arm.		Crank Arm.		Lamp Arm.	Black Finish.	N. P. or Ox. Cop.
4½ ft.	x	10 in.	x	1½ ft.....	$3.20....	$4.75
5 ,,	x	10 ,,	x	1½ ,, ...	3.35....	4.95
5½ ,,	x	10 ,,	x	2 ,, ...	3.55....	5.25
6 ,,	x	10 ,,	x	2 ,, ...	3.70....	5.45
6½ ,,	x	10 ,,	x	2½ ,, ...	3.90....	5.75



Style 1E.

White's Style 2E Floor Fixtures.

Same as 1E, but with one adjustable electric light, one fixed gas-burner.

Upright Arm.		Crank Arm.		Lamp Arm.	Black Finish.	N. P. or Ox. Cop.
4½ ft.	x	10 in.	x	1½ ft.....	$4.40....	$6.15
5 ,,	x	10 ,,	x	1½ ,, ...	4.55....	6.35
5½ ,,	x	10 ,,	x	2 ,, ...	4.75....	6.65
6 ,,	x	10 ,,	x	2 ,, ...	4.90....	6.85
6½ ,,	x	10 ,,	x	2½ ,, ...	5.10....	7.15

White's Style 1EE Floor Fixtures.

When two lights from floor connections are to be used near together, or when it is desirable to run two lights from one floor-wiring outlet, our Styles 1EE and 2EE fixtures are most useful and efficient devices.

Two adjustable electric lights; no gas-burner.

Polished brass, old brass, or black bronze, 10 per cent additional to list price for regular plated finishes. Black finish sent unless otherwise ordered.

Upright Arm.		Crank Arm.		Lamp Arm.	Black Finish.	N. P. & Ox. Cop.
4½ ft.	x	7 in.	x	1½ ft....	$6.00....	$8.00
5 ,,	x	7 ,,	x	1½ ,, ...	6.15....	8.20
5½ ,,	x	7 ,,	x	2 ,, ...	6.40....	8.55
6 ,,	x	7 ,,	x	2 ,, ...	6.55....	8.75
6½ ,,	x	7 ,,	x	2½ ,, ...	6.80....	9.10

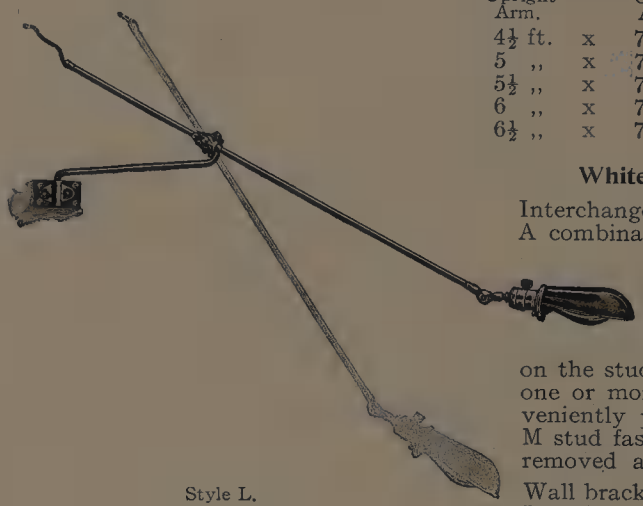
Style 1EE.

FIXTURES, **Adjustable** (Continued).

White's Style 2EE Floor Fixtures.

Same as above with two adjustable electric lights and one fixed gas-burner. Prices include gas cocks and burners.

Upright Arm.		Crank Arm.		Lamp Arm.	Black Finish.	N. P. or Ox. Cop.
4½ ft.	x	7 in.	x	1½ ft.	$6.85	$9.00
5 ,,	x	7 ,,	x	1½ ,,	7.00	9.20
5½ ,,	x	7 ,,	x	2 ,,	7.25	9.55
6 ,,	x	7 ,,	x	2 ,,	7.40	9.75
6½ ,,	x	7 ,,	x	2½ ,,	7.65	10.10



Style L.

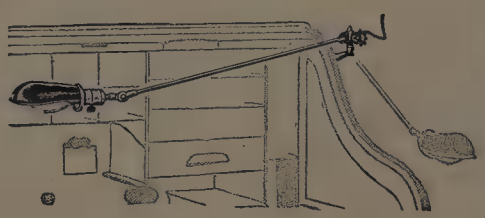
White's Style L Wall Bracket.

Interchangeable with Style M.

A combination of the lamp arm of the fixtures shown on the preceding pages, with a special clamp plate and crank arm. The lamp arm may be quickly removed from the crank by turning handscrew, and may then be placed on the stud of the Style M fixture. Thus, with one or more clamp plates and crank arms conveniently placed in an office and with the Style M stud fastened to desk, one lamp arm may be removed and re-attached where needed.

Wall bracket, nickel finish	each,	$2.70
Base joint only	,,	.40
Crank-arm only	,,	.30
Slide-arm, 2½ ft., including cone joint, wrist joint, and tip	each,	2.00

White's Style M Desk Bracket.



Style M.

This fixture is attached to the desk by means of a small stud screwed to the side. The slide arm, 2½ feet in length, attaches to this stud by means of the compound swiveling cone joint. The lamp is attached directly to the regular wrist joint. The whole can be removed from the stud by simply turning hand tightener on the cone joint.

Desk-fixture, complete, right-hand, nickel finish	each,	$2.30
Desk-fixture, complete, left-hand, nickel finish	each,	2.30
Extra stud bracket, right-hand	,,	.30
,, ,, ,, left-hand	,,	.30

White's Style 1F Bracket Fixture.



Style 1F.

It has all the adjustability of the larger and heavier fixtures shown on the preceding pages, and secure and quick fixation to any position within its range — 3 feet. It is intended for attachment to woodwork where there is external wiring. The material is tough bronze metal throughout.

We can fit this style for attachment to ¼- or ⅜-inch pipe at the same prices as are given.

Regular finish, oxidized copper.

Oxidized copper	each,	$4.80
Polished brass	,,	4.50
Gold lacquer	,,	4.50
Nickel	,,	4.50
Old brass	,,	4.50



Style 3F.

White's Style 3F Bracket Fixture.

This fixture has the same working parts and range as No. 1F, but the base is circular, 4½ inches in diameter, with insulating bushings for cord. It

(*Continued on next page.*)

FIXTURES, Adjustable.



Style 2F.



Style 4F.



Style 5F.



Style 6F.

White's Style 3F Bracket Fixture (Continued).

is for attachment to either woodwork or plastering, especially where the wires are within the walls.

Regular finish, oxidized copper.

Oxidized copper	each,	$5.30
Polished brass	,,	5.00
Gold lacquer	,,	5.00
Nickel	,,	5.00
Old brass	,,	5.00

White's Style 2F Bracket Fixture.

This fixture is designed to meet those requirements where full adjustability is desired, but great range unnecessary; the reach, exclusive of lamp-socket, is 22 inches. The fixture is equipped with double ball-joint, and has at the base a special swiveling knuckle joint. The base should be attached to woodwork. Can be fitted for attachment to $\frac{1}{4}$- or $\frac{3}{8}$-inch pipe at the same prices as are given.

Regular finish, oxidized copper.

Oxidized copper	each,	$4.00
Polished brass	,,	3.75
Gold lacquer	,,	3.75
Nickel	,,	3.75
Old brass	,,	3.75

White's Style 4F Bracket Fixture.

This style has the same working parts as No. 2F, but the base is the same as used on No. 3F. It is for attachment to woodwork or plastering, with concealed wiring.

Regular finish, oxidized copper.

Oxidized copper	each,	$4.50
Polished brass	,,	4.25
Gold lacquer	,,	4.25
Nickel	,,	4.25
Old brass	,,	4.25

White's Style 5F Bracket Fixture.

The special pattern of ball-and-socket joint at the base permits rotative as well as angular adjustment, and entirely conceals the cord. The range, exclusive of lamp socket, is 18 inches.

We can fit this style for attachment to $\frac{1}{4}$-inch or $\frac{3}{8}$-inch pipe at the same prices as are given.

Regular finish, oxidized copper.

Oxidized copper	each,	$4.50
Polished brass	,,	4.25
Gold lacquer	,,	4.25
Nickel	,,	4.25
Old brass	,,	4.25

White's Style 6F Bracket Fixture.

This fixture is especially designed for direct attachment to the top of the desk when such an arrangement is preferable to using a portable lamp. It has swiveling base, knuckle base joint, and double ball joint, which permit the lamp to be turned in any direction to do away with glare, or to be put up out of the way.

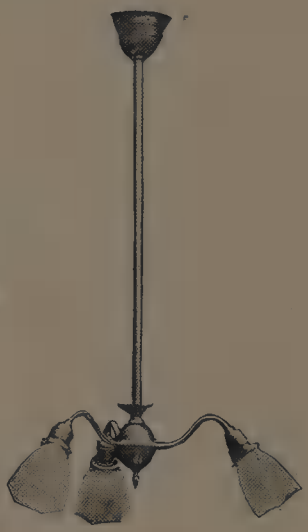
Regular finish, oxidized copper.

Oxidized copper	each,	$4.60
Polished brass	,,	4.25
Gold lacquer	,,	4.25
Nickel	,,	4.25
Old brass	,,	4.25

FIXTURES, Ceiling (see Lights, ceiling).



No. 4012.



No. 9716.



No. 6004.



No. 6480.

FIXTURES, Electric and Gas

(see Husks, Holders, Lights, etc.).

Fixtures listed are furnished regularly in brushed brass, polished brass, or rich gilt finish. The following extra charge is made for special finishes:

Acid bronze.....10%
Oxidized copper.....10%
Steel.....20%
Silver.....20%
Verde.....20%
Nickel plated.....20%

Dimensions are for length, from ceiling to lowest point on fixture, and for spread, the distance from nozzle to nozzle.

Prices do *not* include electric shade holders, sockets, shades, or wiring unless so stated.

On gas and combination fixtures prices include gas holders, pillars, and tips, but not insulating joints unless mentioned. For extra lengths of stem, see " Pipe, brass."

Electric Fixtures.

No.		2-Lt.	3-Lt.
9716.	Electric fixture.. Length, 36 in. Spread, 13 in. Regular finish, rich gilt or brushed brass.	$2.00	$2.50
4012.	Electric fixture.. Length, 36 in. Spread, 13 in. Regular finish, rich gilt or brushed brass.	$2.00	$2.50
6004.	Electric fixture.. Length, 36 in. Spread, 13 in. Regular finish, rich gilt or brushed brass.	$2.50	$3.00
6480.	Electric fixture.. Length, 36 in. Spread, 12 in. Regular finish, rich gilt, or brushed brass.	$3.90	$4.80



No. 9711.



No. 6005.



No. 4918.



No. 6219.



No. 6268.



No. 11904.

FIXTURES, Electric and Gas.

Electric Fixtures (Continued).

No. 9711. Electric fixture,

2-Lt.	3-Lt.	4-Lt.
$3.25	$3.80	$4.36

Length, 36 in.
Spread, 14 in.
Regular finish.

No. 6005. Electric fixture,

2-Lt.	3-Lt.	4-Lt.
$3.75	$4.70	$5.65

Length, 36 in.
Spread, 13 in.
Regular finish.

No. 4918. Electric fixture,

2-Lt.	3-Lt.
$4.00	$4.80

Length, 36 in.
Spread, 15 in.
Regular finish.

No. 6219. Electric fixture,

2-Lt.	3-Lt.	4-Lt.
$6.25	$7.50	$8.75

Length, 36 in.
Spread, 16 in.
Regular finish.

No. 6268. Electric fixture, no dome,

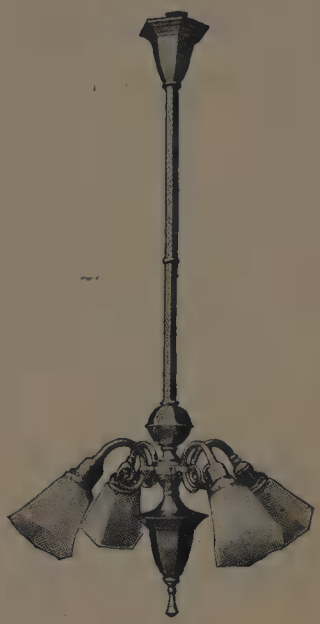
3-Lt.
$6.00

Length, 36 in.
Spread, 16½ in.
Regular finish.

No. 11904. Electric fixture, no dome,

3-Lt.
$4.00

Length, 36 in.
Spread, 18 in.
Regular finish.



No. 4624.



No. 4732.



No. 6089.



No. 6102.



No. 4962.



No. 4800.

FIXTURES, Electric and Gas.

Electric Fixtures
(Continued).

No.
4624. Electric fixture,
2-Lt. 3-Lt. 4-Lt.
$8.00 $9.25 $10.50
Length, 42 in.
Spread, 22 in.
Regular finish.

No.
4732. Electric fixture,
2-Lt. 3-Lt. 4-Lt.
$8.20 $10.00 $11.75
Length, 36 in.
Spread, 20 in.
Regular finish.

No.
6089. Electric fixture,
2-Lt. 3-Lt.
$6.90 $8.10
Length, 36 in.
Spread, 26 in.
Regular finish.

No.
6102. Electric fixture,
2-Lt. 3-Lt. 4-Lt.
$10.00 $11.50 $13.00
Length, 40 in.
Spread, 30 in.
Regular finish.

No.
4962. Electric fixture,
2-Lt. 4-Lt.
$10.50 $13.00
Length, 36 in.
Spread, 20 in.
Regular finish.
No glass.

No.
4800. Electric fixture,
2-Lt. 3-Lt. 4-Lt.
$6.80 $8.00 $9.10
Length, 36 in.
Spread, 28 in.
Regular finish.

FIXTURES, Electric and Gas.

Electric Fixtures
(Continued).



No. 5586.



No. 1470.

No. 1470. Electric fixture,

2-Lt.	3-Lt.	4-Lt.
$5.60	$6.80	$8.00

Length, 36 in.
Spread, 22 in.
Regular finish.

No. 5586. Electric fixture,

2-Lt.	3-Lt.	4-Lt.
$5.00	$6.00	$7.00

Length, 36 in.
Spread, 14 in.
Regular finish.



No. 6007.

No. 6300. Electric fixture,

2-Lt.	3-Lt.	4-Lt.
$8.00	$9.90	$12.00

Length, 36 in.
Spread, 18 in.
Regular finish.

No. 5587. Electric fixture,

2-Lt.	3-Lt.	4-Lt.
$4.50	$5.25	$5.75

Length, 14 in.
Spread, 16 in.
Regular finish.



No. 2176.

No. 2176. Electric fixture.

3-Lt.	4-Lt.	5-Lt.
$9.00	$10.00	$12.00

Length, 12 in.
Spread, 20 in. over all.
With husks.
When more than three lights, the centre light is used and counted.
Regular finish.



No. 5587.



No. 6300.

No. 6007. Electric fixture,

3-Lt.
each, $3.00

Length, 13 in.
Spread, 15 in.
Regular finish.

FIXTURES, Electric and Gas.

Electric Fixtures (Continued).



No. 4187.

		2-Lt.	3-Lt.	4-Lt.
No. 4187.	Electric fixture	$5.00	$6.35	$7.75

Length, 12 in.
Spread, 22 in. over all.
Regular finish.



No. 1869.

		2-Lt.	4-Lt.
No. 1869.	Electric fixture	$9.00	$13.00

Length, 16 in.
Spread, 16 in.
Regular finish.
Price includes cast holders.



No. 1964.

		3-Lt.	4-Lt.	5-Lt.
No. 1964.	Electric fixture ...	$12.40	$13.50	$14.75

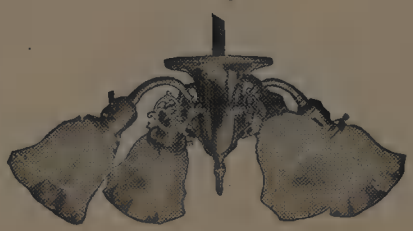
Length, 15½ in.
Spread, 24 in.
Regular finish.



No. 1978.

		3-Lt.	4-Lt.	5-Lt.
No. 1978.	Electric fixture	$7.20	$8.75	$10.25

Length, 40 in.
Spread, 30 in.
Regular finish.



No. 1808.

		2-Lt.	3-Lt.	4-Lt.
No. 1808.	Electric fixture	$4.50	$5.60	$6.75

Length, 8 in.
Spread, 18 in.
Regular finish.



No. 1810.

		2-Lt.	3-Lt.	4-Lt.
No. 1810.	Electric fixture	$5.50	$6.75	$8.00

Length, 8½ in.
Spread, 22 in.
Regular finish.



No. 6001.



No. 21304.



No. 4449.



No. 5998.



No. 3414.



No. 21703.

FIXTURES, Electric and Gas
(Continued).

Combination Fixtures.

No.		2 Gas, 2 Elec.	3 Gas, 3 Elec.
6001.	Combination fixture,	$3.00	$4.00
	Length, 36 in.		
	Spread, 22 in.		
	Regular finish.		

No.		2 Gas, 2 Elec.	3 Gas, 3 Elec.
21304.	Combination fixture,	$4.60	$6.00
	Length, 36 in.		
	Spread, 22 in.		
	Regular finish.		

No.		2 Gas, 2 Elec.	3 Gas, 3 Elec.
4449.	Combination fixture,	$4.50	$5.50
	Length, 36 in.		
	Spread, 22 in.		
	Regular finish.		

No.		2 Gas, 2 Elec.	3 Gas, 3 Elec.
5998.	Combination fixture,	$3.75	$4.75
	Length, 36 in.		
	Spread, 21 in.		
	Regular finish.		

No.		2 Gas, 2 Elec.	3 Gas, 3 Elec.
21703.	Combination fixture,	$5.00	$6.60
	Length, 36 in.		
	Spread, 18 in.		
	Regular finish.		

No.		4 Gas, 2 Elec.
3414.	Combination fixture, wrought iron.....each,	$24.50
	Length, 48 in.	
	Spread, 28 in.	
	Dome, 16½ in. square.	
	Dead black finish.	
	Special finishes, extra.	



No. 4605.



No. 3443.



No. 6000.



No. 6002.



No. 4463.

FIXTURES, Electric and Gas.

Combination Fixtures
(Continued).

No.		2 Gas, 2 Elec.	2 Gas, 3 Elec.	3 Gas, 4 Elec.
4605.	Combination fixture..	$7.00	$8.60	$11.00

Length, 38 in.
Spread, 29 in.
Regular finish.

No.		4 Gas, 2 Elec.
3443.	Combination fixture, wrought iron..each,	$28.00

Length, 48 in.
Spread, 28 in.
Dome, 16½ in. square.
Dead black finish.
Special finishes, extra.

Gas Fixtures.

No.		2-Lt.	3-Lt.
6000.	Gas fixture.....	$2.00	$2.50

Length, 36 in.
Spread, 24 in.
Regular finish.

No.		2-Lt.
6002.	Gas fixture.....	$1.75

Length, 36 in.
Spread, 22 in.
Regular finish.

No.		2-Lt.	3-Lt.
4463.	Gas fixture.....	$2.35	$3.30

Length, 36 in.
Spread, 22 in.
Regular finish.



No. 5816.

No. 18002.



No. 1501.

No. 4096.

No. 15502.



No. 14002.

No. 9500.

FIXTURES, Electric and Gas.

Gas Fixtures (Continued).

		2-Lt.	3-Lt.
No. 15502.	Gas fixture.....	$3.20....	$4.40
	Length, 36 in.		
	Spread, 22 in.		
	Regular finish.		

		2-Lt.	3-Lt.
No. 5816.	Gas fixture.....	$3.50...	$4.75
	Length, 36 in.		
	Spread, 16 in.		
	Regular finish.		

		2-Lt.	3-Lt.
No. 18002.	Gas fixture.....	$4.70....	$6.00
	Length, 36 in.		
	Spread, 18 in.		
	Regular finish.		

		2-Lt.	3-Lt.
No. 14002.	Gas fixture.....	$3.80....	$4.80
	Length, 36 in.		
	Spread, 19 in.		
	Regular finish.		

Electric Pendants, 1 Light.

The chain pendants may be arranged for two, three, or four lights to order.

No. 1501. Electric pendant.....each, $ .85
Length, 30 in.
Regular finish.

No. 9500. Electric pendant.....each, 1.40
Length, 28 in.
Regular finish.

No. 4096. Electric pendant.....each, 2.00
Length, 30 in.
Regular finish.



FIXTURES, Electric and Gas.

Electric Pendants, 1 Light
(Continued).

No. 2168. Electric pendant.....each, $2.00
Length, 36 in. over glass ware.
Regular finish.

No. 306. Electric pendant.....each, 1.80
Length, 30 in.
Regular finish.

No. 9596. Electric pendant.....each, 2.00
Length, 27 in.
Regular finish.

No. 1835. Electric pendant.....each, 6.00
Brass chain.
Length, 36 in.
Regular finish, no glass.

No. 1836. Electric pendant.....each, 4.00
Same as 1835 but with iron chain, plated, no glass.

No. 9029. Electric pendant.....each, 12.00
Brass chain.
Length, 36 in.
Regular finish, no glass.

No. 1459. Electric pendant.....each, 14.40
Length, 42 in.
Dome, 14 in.
Wrought iron.
Special finishes extra.

No. 3396. Electric pendant.....each, 18.40
Length, 42 in.
Dome, 16½ in. square.
Wrought iron.
Special finishes extra.

Combination Pendants, 1 Gas, 1 Electric.

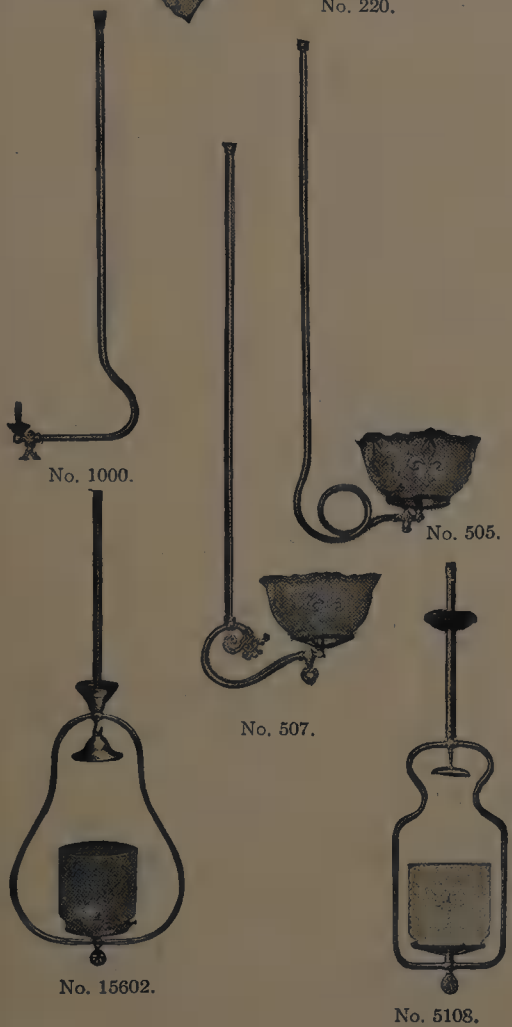
No. 215. Combination pendant..... $2.00
Length, 36 in. over all.
Spread, 14 in. over all.
Regular finish.



No. 19602.

No. 4050.

No. 220.



No. 1000.

No. 505.

No. 507.

No. 15602.

No. 5108.

FIXTURES, Electric and Gas.

Combination Pendants, 1 Gas, 1 Electric (Continued).

No. 220. Combination pendant.... $2.00
Length, 34 in. over all.
Spread, 18 in. over all.
Regular finish.

No. 19602. Combination pendant..... 4.00
Length, 34 in. over all.
Spread, 12 in over all.
Regular finish.

No. 4050. Combination pendant..... 3.00
Length, 36 in. over all.
Spread, 11 in. over all.
Regular finish.

Gas Pendants, 1 Light.

No. 1000. Gas pendant.....each, $ .54
Length, 34 in.
Spread, 8 in.
Regular finish.

No. 1001. Gas pendant with Boston key..... each, .80
Length, 34 in.
Spread, 8 in.
Regular finish.
Same as No. 1000 except key.

No. 505. Gas pendant.....each, 1.20
Length, 34 in.
Spread, 11 in. over all.
Regular finish.

No. 507. Gas pendant.....each, 1.45
Length, 34 in.
Spread 11 in. over all.
Regular finish.

Harp Fixtures.

No. 15602. Harp fixture, 1 lt., gas..... $1.75
Round tube.
Length, 30 in.
Regular finish.

No. 5108. Harp fixture, 1 lt., gas..... 2.00
Round tube
Length, 36 in.
Spread, 8 in.
Regular finish.



FIXTURES, Electric and Gas.

Harp Fixtures (Continued).

No. 4822. Combination Harp, 1 gas, 1 elec..... $6.00
Length, 36 in.
Regular finish.

No. 5 Welsbach Harp Fixtures.

Equipped with new model No. 66P high candle-power Welsbach burner, side pilot by-pass, tube covered with refractory sleeve to prevent bending. Smoke bell and 14-inch reflector attached to an adjustable brass crown.

Without air-hole cylinder or mantle. Length, 30 inches; length of harp, 22 inches; width, 4½ inches. Finish, polished brass.

With No. 5 opal glass reflector, each, 3.50
With No. 5 steel enameled refl., ,, $3 90

No. 6 Welsbach Harp Fixture.

Same equipment as No. 5 harp except shade and crown, No. 6 harp having 14-inch opal dome shade, adjustable embossed shade crown, 2¼ inches high.

Without air-hole cyclinder or mantle. Length, 30 inches. Length of harp, 22 inches. Width, 4½ inches. Finish, polished brass.....each, $4.20

No. 7 Welsbach Harp Fixture.

Equipped with No. 66P burner, No. 4 pilot by-pass, smoke bell, and 14-inch green or ruby art glass shade with 5-inch beaded fringe.

Without air hole cylinder or mantle. Length, 30 inches; length of harp, 22 inches; width, 4½ inches. Finish, brush brass.....each, $14.00

Gas Lanterns.

No. 15603. Gas lantern, 1 lt., each, $6.00
Length, 36 in.
Size glass, 7 x 9 in.
Regular finish, polished brass or old brass.

No. 1484. Gas lantern, round, 1 lt., 3.40
Length, 36 in.
Opalescent cylinder, 7 x 7 in., included.
Regular finish, dead black.

No. 1420. Gas lantern, square, 1 lt., 6.00
Length, 36 in.
Size glass, 6 x 8 in.
Regular finish, dead black.

No. 1416. Gas lantern, square taper, 1 lt..... 6.00
Length, 36 in.
Size glass, 6¼ x 8½ x 3½ in.
Regular finish, dead black.

No. 1483. Combination, gas and electric lantern..... 6.25
Length, 36 in.
Size of cylinder, 7 x 7 in.
Regular finish, dead black.

FIXTURES, Electric and Gas (Continued).

Electric Fittings.



No. 460.



No. 461.

No. 460. Straight Nozzle.

(Brass tubing sizes.)

$\frac{3}{8}$ x $\frac{3}{8}$	per 100,	$6.00
$\frac{7}{16}$ x $\frac{3}{8}$	,,	10.00
$\frac{1}{2}$ x $\frac{3}{8}$	,,	10.00
$\frac{5}{8}$ x $\frac{3}{8}$	,,	12.50

No. 461. Elbow Nozzle.

(Brass tubing sizes.)

$\frac{3}{8}$ x $\frac{3}{8}$	per 100,	$12.50
$\frac{7}{16}$ x $\frac{3}{8}$	,,	12.50
$\frac{1}{2}$ x $\frac{3}{8}$	,,	12.50



No. 462.

No. 462. Brass Bushing.

(Iron pipe sizes.)

$\frac{1}{4}$ x $\frac{1}{8}$	per 100,	$5.00
$\frac{3}{8}$ x $\frac{1}{4}$	,,	6.50
$\frac{1}{2}$ x $\frac{5}{8}$	,,	8.70
$\frac{3}{4}$ x $\frac{1}{2}$	,,	15.65
1 x $\frac{3}{4}$	,,	24.35



No. 463.



No. 464.

No. 463. Nipple.

(Brass tubing size.)

$\frac{3}{8}$ x $\frac{3}{8}$	per 100,	$4.00

No. 464. Secret Nozzle.

$\frac{5}{8}$ brass to burner size	per 100,	$15.00



No. 465.



No. 466.

No. 465. Acorn Cap.

(Iron pipe sizes.)

$\frac{1}{8}$ inch	per 100,	$15.00
$\frac{1}{4}$,,	,,	15.00
$\frac{3}{8}$,,	,,	15.00



No. 467.

No. 466. Angle Nozzle.

(Brass tubing sizes.)

$\frac{3}{8}$ x $\frac{3}{8}$	per 100,	$12.50
$\frac{7}{16}$ x $\frac{3}{8}$	,,	12.50
$\frac{1}{2}$ x $\frac{3}{8}$	,,	12.50



No. 7431.



No. 7461.

No. 467. Straight Nozzle.

$\frac{1}{8}$ iron to burner	per 100,	$4.00

No. 7431. Tube Connector.

$\frac{1}{4}$ iron x $\frac{1}{4}$ iron	per 100,	$20.00
$\frac{1}{8}$,, x $\frac{1}{8}$,,	,,	20.00



No. 7149.



No. 7263.

No. 7461. Stiff Joint.

$\frac{1}{4}$ iron x $\frac{1}{4}$ iron	per 100,	$15.00
$\frac{1}{4}$,, x $\frac{1}{8}$,,	,,	15.00

No. 7149. Portable Sliding Body.

Any slip to stock	per 100,	$50.00



No. 7464.

No. 7263. Outlet Cap.

$\frac{1}{8}$ and $\frac{1}{4}$ iron	per 100,	$15 00
$\frac{3}{8}$,, $\frac{1}{2}$,,	,,	20.00

No. 7464. Stiff Joints.

$\frac{3}{8}$ iron x $\frac{1}{4}$ iron	per 100,	$20.00
$\frac{3}{4}$,, x $\frac{1}{8}$,,	,,	20.00



No. 7465.

No. 7465. Stiff Joints.

$\frac{3}{8}$ iron x $\frac{1}{4}$ iron	per 100,	$15.00
$\frac{3}{8}$,, x $\frac{1}{8}$,,	,,	15.00



Nos. 450 and 452.



Nos. 451 and 453.



Nos. 445 and 447.



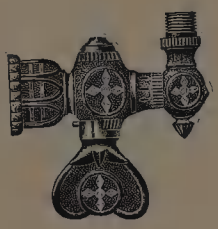
Nos. 446 and 448.



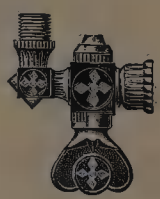
No. 441.



Distributer.



L. Burner Cocks.



Small L. Burner Cock.



Universal Bracket Swing Cocks.

Bracket Swing Cock.



Stop Cock.



Independent Cock.

FIXTURES, Electric and Gas.

Electric Fittings (Continued).

Chandelier Loops.

(Iron pipe sizes.)

No. 450	$\frac{3}{8}$-inch, male	per 100,	$8.00
,, 452	$\frac{1}{2}$,, ,,	,,	8.00
,, 451	$\frac{3}{8}$,, female	,,	8.00
,, 453	$\frac{1}{2}$,, ,,	,,	8.00

Chandelier Hooks.

(Iron pipe sizes.)

No. 445	$\frac{3}{8}$-inch, male	per 100,	$8.00
,, 447	$\frac{1}{2}$,, ,,	,,	8.00
,, 446	$\frac{3}{8}$,, female	,,	8.00
,, 448	$\frac{1}{2}$,, ,,	,,	8.00

Iron Hickey (see also Joints insulated).

No. 441 ..... $\frac{3}{8}$ iron x 5-27, male ... per 100, $15.00

Close Nipples.

		Per 100.
No. S-1258	1-in. x -in. close nipple	$2.00
,, S-1259	1½ ,, x ⅜ ,, ,, ,,	2.25
,, S-1260	2 ,, x ⅜ ,, ,, ,,	3.00

Iron Distributers or Chandelier Bodies.

No. 1052	2-light, gas	per 100,	$8.00	
	3 ,, ,,	,,	9.00	
	4 ,, ,,	,,	11.00	
				With Set Screw.
No. 98	2 ,, electric,	per 100,	$11.00	$19.00
	3 ,, ,, ,,		12.00	24.00
	4 ,, ,, ,,		14.00	30.00
			Per 100.	
No. 141	2–2 light combination,		14.00	22.00
	3–3 ,, ,,		16.00	28.00
	4–4 ,, ,,		18.00	34.00

Standard Staple Gas Fixture Fittings.

All standard gas fixture fittings are furnished in gilt finish.

L. Burner Cocks, No. S-1261.

$\frac{1}{2}$ iron to burner	per doz.,	$6.20
$\frac{3}{8}$,, ,, ,,	,,	5.20
$\frac{1}{4}$,, ,, ,,	,,	4.55
$\frac{1}{8}$,, ,, ,,	,,	4.25
$\frac{3}{8}$,, ,, ,, 4½ inches	,,	8.25
$\frac{1}{4}$,, ,, ,, 4½ ,,	,,	8.25

Small L. Burner Cock, No. S-1262.

$\frac{1}{8}$ iron to burner ..... per doz., $3.50

Bracket Swing Cocks, No. S-1263.

$\frac{3}{8}$ iron to $\frac{3}{8}$ iron	per doz.,	$9.10
$\frac{3}{8}$,, ,, $\frac{1}{4}$,,	,,	8.45
$\frac{3}{8}$,, ,, $\frac{1}{8}$,,	,,	8.15

Universal Bracket Swing Cocks, No. S-1264.

$\frac{3}{8}$ iron to $\frac{3}{8}$ iron	per doz.,	$13.00
$\frac{3}{8}$,, ,, $\frac{1}{4}$,,	,,	12.35
$\frac{3}{8}$,, ,, $\frac{1}{8}$,,	,,	12.05

Stop Cocks, No. S-1265.

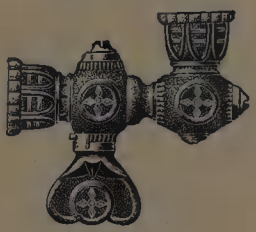
$\frac{3}{8}$ iron to $\frac{3}{8}$ iron	per doz.,	$4.90
$\frac{3}{8}$,, ,, $\frac{1}{4}$,,	,,	4.55
$\frac{3}{8}$,, ,, $\frac{1}{8}$,,	,,	4.55
$\frac{1}{4}$,, ,, $\frac{1}{4}$,,	,,	4.55
$\frac{1}{4}$,, ,, $\frac{1}{8}$,,	,,	4.25
$\frac{1}{8}$,, ,, $\frac{1}{8}$,,	,,	3.90

Independent Cocks, No. S-1266.

For rubber hose, $\frac{3}{8}$ iron	per doz.,	$6.50
,, ,, ,, $\frac{1}{4}$,,	,,	6.00
,, ,, ,, $\frac{1}{8}$,,	,,	5.50
,, ,, ,, $\frac{3}{8}$,, extra heavy,	,,	8.00
,, patent socket, $\frac{3}{8}$ iron	,,	6.50
Gas stove cock, $\frac{3}{8}$ iron	,,	6.75



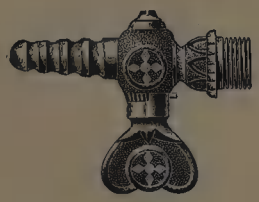
L. Pendant Cock.



Revolving Pendant Cock.



Universal Pendant Cock.



Hose Cock (male).



Straight Nozzle.



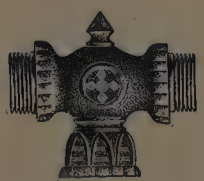
Side Nozzle.



Hose End.



Two-Light Bracket Bodies.



Two-Light Pillar Bodies.



Stiff Joints.

FIXTURES, Electric and Gas.

Standard Staple Gas Fixture Fittings (Continued).

L. Pendant Cocks, No. S-1267.

⅜ iron to ¼ iron	per doz.,	$5 20
⅜ " " ⅛ "	"	5.20
¼ " " ¼ "	"	5.20
¼ " " ⅛ "	"	4 90
⅛ " " ⅛ "	"	4.90

Revolving Pendant Cocks, No. S-1268.

⅜ iron to ⅜ iron	per doz.,	$8.50
⅜ " " ¼ "	"	8.15
⅜ " " ⅛ "	"	7 80
¼ " " ¼ "	"	7.50
¼ " " ⅛ "	"	7 15
⅛ " " ⅛ "	"	7.15

Universal Pendant Cocks, No. S-1269.

⅜ iron to ⅜ iron	per doz.,	$10.20
⅜ " " ¼ "	"	9.75
⅜ " " ⅛ "	"	9.45

Hose Cocks (female), **No. S-1270.**

½ iron	per doz.,	$5.25
⅜ "	"	4.90
¼ "	"	4.55
⅛ "	"	4.25

Hose Cocks (male), **No. S-1271.**

½ iron	per doz.,	$5.55
⅜ "	"	5.20
¼ "	"	4.90
⅛ "	"	4.55

Hose Ends, No. S-1272.

½ iron	per doz.,	$3.60
⅜ "	"	3.25
¼ "	"	2.95
⅛ "	"	2.60

Side Nozzles, No. S-1273.

⅜ iron to burner	per doz.,	$2.30
¼ " " "	"	1.65
⅛ " " "	"	1.00
5/16 brass	"	1.00

Straight Nozzles, No. S-1274.

½ iron to burner	per doz.,	$3.00
⅜ " " "	"	1.95
¼ " " "	"	1.65
⅛ " " "	"	1.00
5/16 brass to burner	"	1.00

Two-Light Bracket Bodies, No. S-1275.

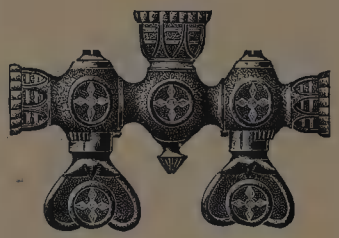
⅜ iron	per doz.,	$3.90

Two-Light Pillar Bodies, No. S-1276.

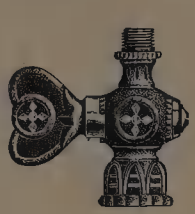
⅜ iron	per doz.,	$5.20

Stiff Joints, No. S-1277.

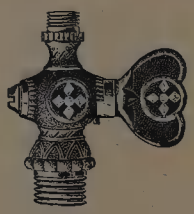
½ iron to ½ iron	per doz.,	$3.25
½ " " ⅜ "	"	2.60
½ " " ¼ "	"	2.60
½ " " ⅛ "	"	2.60
⅜ " " ⅜ "	"	1.95
⅜ " " ¼ "	"	1.85
⅜ " " ⅛ "	"	1.55
¼ " " ¼ "	"	1.50
¼ " " ⅛ "	"	1.40
⅛ " " ⅛ "	"	1.40
⅜ iron to ½ brass	"	1.80
⅜ " " ⅜ "	"	1.95
⅜ " " 7/16 "	"	1.80
⅜ " " 5/16 "	"	1.55
⅜ " " 9/16 "	"	1.95



Two-Light Pendant Cock.



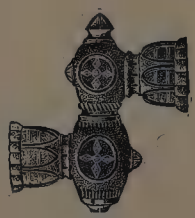
Pillar Cock (female).



Pillar Cock (male).



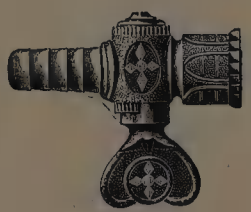
Universal Swings.



Top Swings.



Brass Chandelier Hook (female).



Fancy Brass Caps.



No. 2.



No. 7.

FIXTURES, Electric and Gas.

Standard Staple Gas Fixture Fittings (Continued).

Two-Light Pendant Cocks, No. S-1278.

$\frac{3}{8}$ iron to $\frac{1}{4}$ iron	per doz.,	$9 10
$\frac{3}{8}$,, $\frac{1}{8}$,,	,,	9.10
$\frac{1}{4}$,, $\frac{1}{4}$,,	,,	9.10
$\frac{1}{4}$,, $\frac{1}{8}$,,	,,	8.45
$\frac{1}{8}$,, $\frac{1}{8}$,,	,,	8.45

Pillar Cocks (female), **No. S-1279.**

$\frac{1}{2}$ iron to burner	per doz.,	$5.25
$\frac{3}{8}$,, ,,	,,	4.55
$\frac{1}{4}$,, ,,	,,	4.25
$\frac{1}{8}$,, ,,	,,	3.90
$\frac{3}{8}$,, ,, 4 in. long	,,	7.15
$\frac{1}{4}$,, ,, 4 ,, ,,	,,	7.15

Pillar Cocks (male), **No. S-1280.**

$\frac{1}{2}$ iron to burner	per doz.,	$6.25
$\frac{3}{8}$,, ,,	,,	5.55
$\frac{1}{4}$,, ,,	,,	5.20
$\frac{1}{8}$,, ,,	,,	4.90

Universal Swings, No. S-1281.

$\frac{3}{8}$ iron to $\frac{3}{8}$ iron	per doz.,	$9.10
$\frac{3}{8}$,, $\frac{1}{4}$,,	,,	8.80
$\frac{3}{8}$,, $\frac{1}{8}$,,	,,	8.80
$\frac{1}{4}$,, $\frac{1}{4}$,,	,,	8.45
$\frac{1}{4}$,, $\frac{1}{8}$,,	,,	8.15
$\frac{1}{8}$,, $\frac{1}{8}$,,	,,	7.80
$\frac{3}{8}$,, $\frac{5}{16}$ brass	,,	7.80

Top Swings, No. S-1282.

$\frac{3}{8}$ iron to $\frac{3}{8}$ iron	per doz.,	$6.20
$\frac{3}{8}$,, $\frac{1}{4}$,,	,,	5.55
$\frac{3}{8}$,, $\frac{1}{8}$,,	,,	5.20
$\frac{3}{8}$,, $\frac{1}{2}$ brass	,,	5.55
$\frac{3}{8}$,, $\frac{7}{16}$,,	,,	5.55

Middle Swings, No. S-1283.

$\frac{1}{4}$ iron to $\frac{1}{4}$ iron	per doz.,	$4.90
$\frac{1}{4}$,, $\frac{1}{8}$,,	,,	4.55
$\frac{1}{8}$,, $\frac{1}{8}$,,	,,	4.25

Brass Chandelier Hooks (female), **No. S-1284.**

$\frac{1}{2}$ iron	per doz.,	$3.25
$\frac{3}{8}$,,	,,	2.95
$\frac{1}{4}$,,	,,	2.95
$\frac{1}{8}$,,	,,	2.95

Brass Chandelier Hooks (male), **No. S-1285.**

$\frac{1}{2}$ iron	per doz.,	$3.25
$\frac{3}{8}$,,	,,	2.95
$\frac{1}{4}$,,	,,	2.95
$\frac{1}{8}$,,	,,	2.95

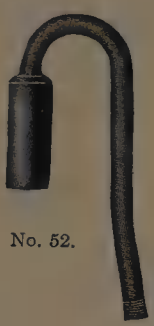
Fancy Brass Caps, No. S-1286.

$\frac{1}{2}$ iron	per doz.,	$2.60
$\frac{3}{8}$,,	,,	1.95
$\frac{1}{4}$,,	,,	1.95
$\frac{1}{8}$,,	,,	1.95

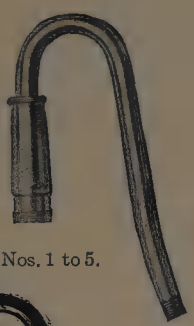
Converted Lamp Fitting.

By use of this fitting an oil lamp can be used as a gas lamp with Welsbach burner.

No. 2. Gas fitting, for use with Standard No. 2 lamp	each,	$ .75
No. 3. Gas fitting, for use with Standard No. 3 lamp	each,	.80
No. 7. Gas fitting, for use with central draft lamp	each,	.70



No. 52.



Nos. 1 to 5.



No. 991.

No. 990.

FIXTURES, Electric and Gas (Continued).

Ground Joints and Swan Necks.

No. 1. Ground joint and swan neck with bayonet lock, 4½ in., polished brass.....per doz., $4.00

No. 2. Ground joint and swan neck with bayonet lock, 3-in., lacquered finish.....per doz., 3.20

No. 4. Ground joint and swan neck without bayonet lock, 4½ in., lacquered finish.....per doz., 3.00

No. 5. Ground joint and swan neck without bayonet lock, 3 in., lacquered finish.....per doz., 2.40

No. 52. Combination stork neck, fitted with a flexible rubber socket which slips over the pillar burner... per doz., 1.80

No. 990. Stork neck, polished brass ,, 3.60

,, 991. Drop light socket for same, metal casing with gum interior, $\frac{5}{16}$-in. tubing.....per doz., 1.88



No. 416.



No. 414.



No. 413.



No. 403.

FIXTURES, Marine.

Brass Bulkhead Fixtures.

Mounted on bases, complete with guards. Black, bronze, or brass finish.

Watertight Fixtures.

No. 416. Full basket guarded fixture complete with watertight globe, guard, and base.....net, each, $4.50

No. 414. Half basket guarded fixture complete with watertight globe, guard, and base.....net, each, 4.00

Non-Watertight Fixtures.

No. 413. Full basket guarded fixture without globe, but with guard and base.....net, each, 3.40

No. 403. Half basket guarded fixture without globe, but with guard and base.....net, each, 2.90



No. 418.

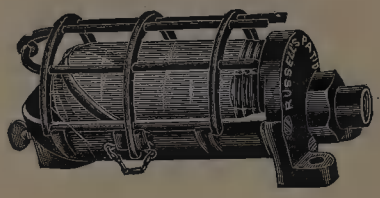
Guarded Fixtures

(see also Globes, W. P.).

No. 418. Guarded brass, watertight, 45° angle fixture, complete with globe.....net, each, $4.00

FIXTURES, Marine.

Guarded Fixtures (Continued).



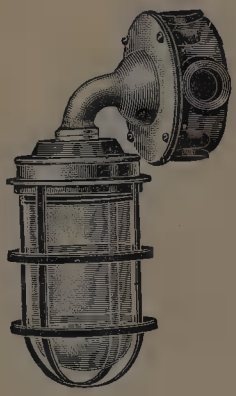
No. 410.

No. 392. Guarded brass, non-watertight fixture for moulding work, net, each, $2.00

No. 410. Patent watertight fixture with very heavy steel guard and white enamel reflector body for use as a deck fixture, net, each, 4.60



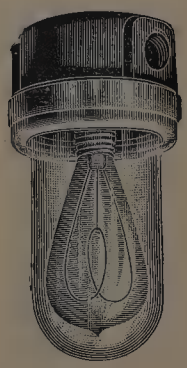
No. 392.



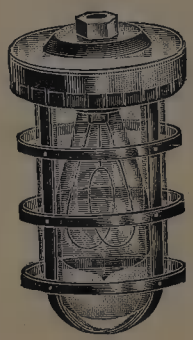
Nos. 404 and 404A.

No. 404. Heavy brass, guarded, watertight, right angle fixture on 4-in. iron junction box, net, each, 3.60

No. 404A. Heavy brass, guarded, watertight, right angle fixture on 4-in. brass junction box, net, each, 4.00



No. 464.



No. 465.

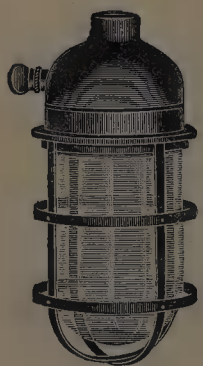
No. 464. Double gasket waterproof fixture, and iron junction box with brass ring.....net, each, 1.40

No. 465. Double gasket waterproof fixture, all brass for conduit direct, complete with guard, net, each, 2.30

No. 465A. Same, without guard. .net, each, 1.90



Nos. 431A and 431.



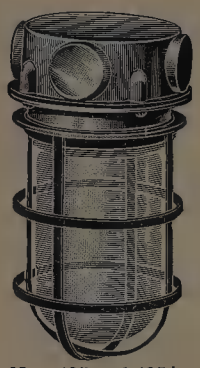
No. 430.

No. 431A. Guarded watertight fixture with switch on brass junction box, net, each, 5.00

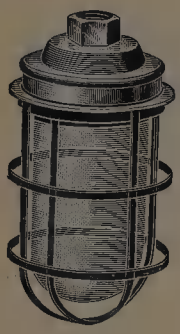
No. 431. Guarded watertight fixture with switch on iron junction box, net, each, 4.50

No. 430. Guarded watertight fixture, with switch, for ½ or ¾ in. conduit, net, each, 3.75

Specify outlets in ordering.



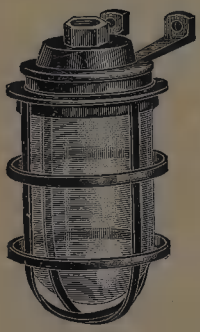
Nos. 405 and 405A.



No. 411.



No. 415.



No. 411F.

FIXTURES, Marine.

Guarded Fixtures (Continued).

No. 411. Guarded watertight fixture, without switch, for ½ or ¾ in. conduit, net, each, $2.30

No. 405. Guarded watertight fixture, mounted on iron junction box .....net, each, 2.70

No. 405A. Guarded watertight fixture, mounted on brass junction box..... net, each, 3.10

No. 415. Guarded watertight fixture, with base for moulding block, net, each, 2.05

No. 411F. Guarded watertight fixture, with feet, for ½ or ¾ in. conduit, net, each, 2.65

Specify outlets in ordering.

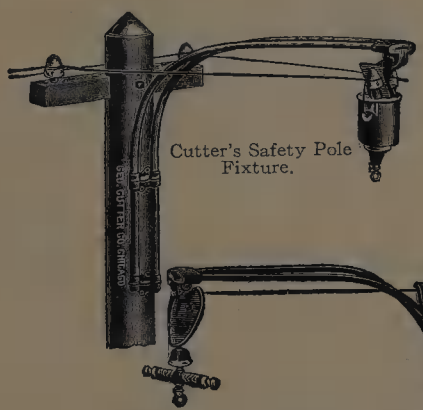
FIXTURES, Pole and Wall (see also Brackets, Mast Arms, etc.).

Cutter's Safety Pole Fixture.

Fitted with Cutter's cut-out pulley which disconnects the lamp from the circuit for trimming and allows it to be lowered while the wires stay up taut. The only bracket pole fixture which allows the lamp to be trimmed on the ground without lowering the line wires and without risk of accidents.

No. S-1287. With pole pulley and curved pole-plate.....net, each, $7.00

No. S-1288. Same with pole pulley and flat wall-plate.....net, each, 7.00

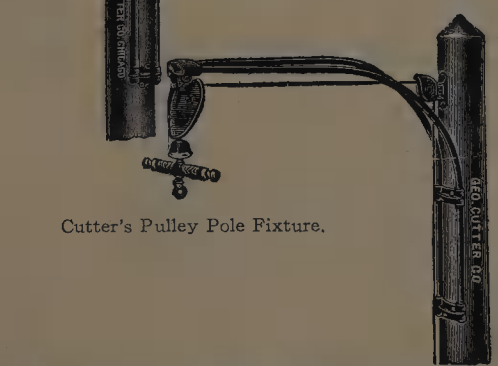


Cutter's Safety Pole Fixture.

Cutter's Pulley Pole Fixture.

A 3-foot fixture complete with lamp-supporting and pole pulleys, enabling the lamp to be lowered for trimming. A strong and fine-looking substitute for a short mast arm.

		Net, Each.
No. S-1289.	With curved pole-plate.....	$3.00
,, S-1290.	Same, with flat wall-plate.....	3.00
,, S-1291.	With curved pole-plate and triple insulation arm.....	3.75
No. S-1292.	With flat wall-plate and triple insulation arm.....	3.75



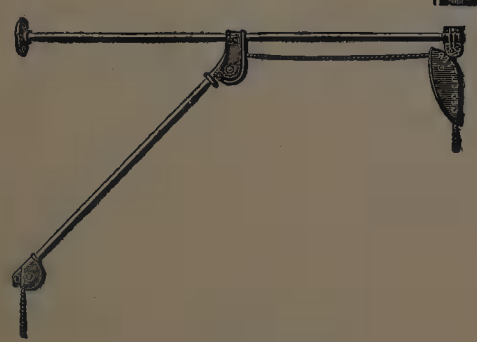
Cutter's Pulley Pole Fixture.

Cutter's Mammoth Bracket.

A larger form of Cutter's inner-rope bracket with a horizontal pipe of 1¼-inch bore and with Cutter's mast-arm pulley at the outer end. (The headpiece has strong ears for guy wires.)

		Net, Each.
No. S-1293.	.. 8 ft. (without rope).....	$3.20
,, S-1294.	...10 ,, ,, ...	3.40
,, S-1295.	...12 ,, ,, ...	3.60
,, S-1296.	.... 8 ,, with Jupiter cross arm,	4.20
,, S-1297.	...10 ,, ,, ,, ,,	4.40
,, S-1298.	...12 ,, ,, ,, ,,	4.60

(In ordering, state whether flat or curved flange is wanted.)



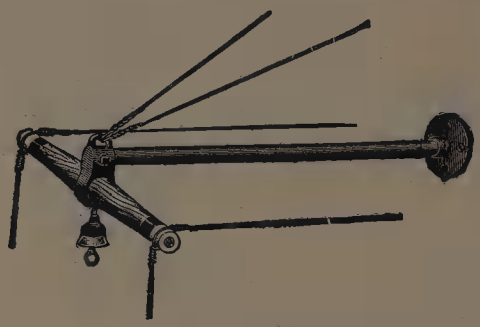
Cutter's Mammoth Bracket.



Cutter's Plain Arc Bracket.



Cutter's Lodge Bracket.



Cutter's Building Fixture.



Cutter's Cast Scroll Bracket.



Cutter's Mansion Bracket.



Cutter's Station Bracket.

FIXTURES, Pole and Wall (Continued).

Cutter's Plain Arc Bracket.

A common-sense bracket, with triple insulation arm at the outer end and either flat or curved plate (for wall or pole).

		Net, Each.
No. S-1299.	Complete, 2-ft. reach	$1.60
,, S-1300.	Same, with 6-ft. reach	1.80
,, S-1301.	Headpiece alone, with triple insulation arm	.80

Other lengths built to order. For corner plate, add 10 cents to the above prices.

Cutter's Lodge Bracket.

An ornamented form of the plain arc bracket, furnished with either flat wall-plate or curved pole-plate.

		Net, Each.
No. S-1302.	2-ft., with flat wall-plate	$2.10
,, S-1303.	6 ,, ,, ,, ,,	2.30
,, S-1304.	2 ,, ,, curved pole-plate,	2.10
,, S-1305.	6 ,, ,, ,, ,,	2.30

For other lengths, add 7 cents per extra foot. For corner plates, add 20 cents to the above prices.

Cutter's Building Fixture.

An outrigger with outer guide-arm only.

		Net, Each.
No. S-1306.	3-ft., with high voltage cross arm	$1.00
No. S-1307.	Same, 6-ft.	1.20
,, S-1308.	3-ft., with combination cross arm, for low voltages	.90
No. S-1309.	Same, 6-ft.	1.10

For longer forms, add 7 cents per extra foot of length. For corner plates, add 10 cents to above prices.

Cutter's Cast Scroll Bracket.

A neat but low-priced ornamental bracket with a high voltage cross arm fitted to the outer end.

		Net, Each.
No. S-1310.	Complete, 3-ft. net, each,	$1.80

For longer forms, add 7 cents per extra foot. For corner plates, add 20 cents to the above prices.

Cutter's Mansion Bracket.

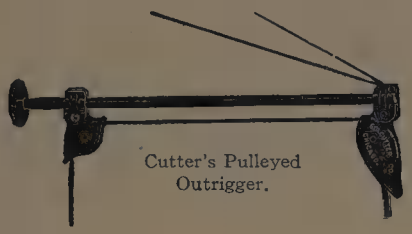
Same as the cast scroll bracket, but with additional wall ornaments.

		Net, Each.
No. S-1311.	3-ft. net, each,	$2.30

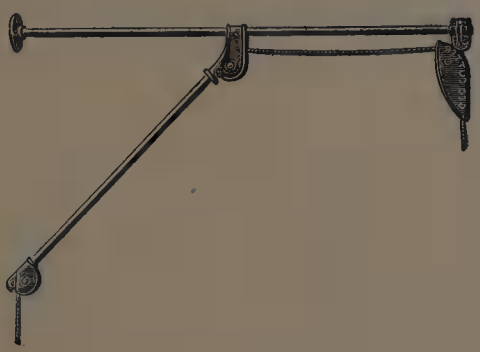
For longer sizes, add 7 cents per extra foot.

Cutter's Station Bracket.

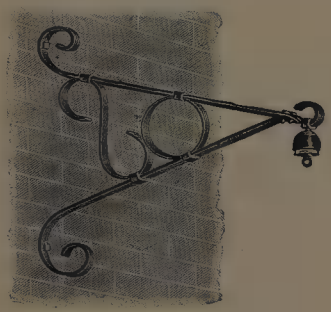
		Net, Each.
No. S-1312.	3-ft., with high voltage cross arm	$2.00
No. S-1313.	Same, 6-ft., with chains for guying the outer end	3.00



Cutter's Pulleyed Outrigger.



Cutter's Inner-Rope Bracket.



Cutter's Angle Change Bracket.



Cutter's Scroll Pulleyed Outrigger.



Cutter's Palace Outrigger.

FIXTURES, Pole and Wall (Continued).

Cutter's Pulleyed Outrigger

Meets the demand for an outrigger for use high up on buildings, the lamp to be trimmed from the ground; is fitted at its outer end with Cutter's outrigger pulley (which is lamp-supporting), while the inner end has a Cutter's sleeve pulley, which is also weatherproof, and which can be clamped at any desired point on the outrigger so as to clear projections in the building.

		Net, Each.
No. S-1314.	Complete, 6-ft.	$1.50
,, S-1315.	Same, with high voltage cross arm, fitted to pulley knob	2.20

For longer forms, add 7 cents per extra foot. For corner plates, add 10 cents to above prices.

Cutter's Inner-Rope Bracket

Has pulleys for lowering the lamp with a rope passing through the piping, the outer pulley being lamp-supporting.

		Net, Each.
No. S-1316.	6-ft., complete except rope	$2.00
,, S-1317.	Same, with triple insulation arm fitted to pulley knob	2.75
No. S-1318.	3-ft., without rope	1.80
,, S-1319.	Same, with triple insulation arm fitted to pulley knob	2.55

Use ⅜-inch " banner core " rope with the above. For corner plates, add 20 cents to the above prices.

Cutter's Angle Change Bracket.

A bracket that can be put together to fit any kind of a job and ornamented to give many different appearances; is neat and very strong when fastened in place.

No. S-1320.	Set complete, including high voltage insulator.....net,	$2.00
No. S-1321.	Corner plates, per pair extra, ,,	.60

Cutter's Scroll Pulleyed Outrigger.

An ornamental fixture with inner weatherproof pulley and outer lamp-supporting pulley for lowering the lamp.

		Net, Each.
No. S-1322.	6-ft., complete except rope	$2.00
,, S-1323.	Same, with triple insulation arm fitted to pulley knob	2.75
No. S-1324.	3-ft., without rope	1.80
,, S-1325.	Same, with triple insulation arm fitted to pulley knob	2.55

Use ⅜- or ½-inch " banner core " rope with these outriggers. For corner plates, add 20 cents to the above prices.

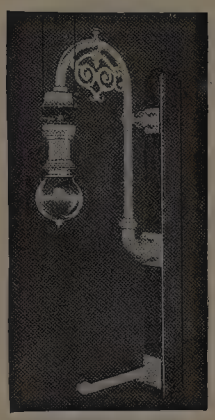
Cutter's Palace Outrigger.

An ornamented form of the inner-rope bracket.

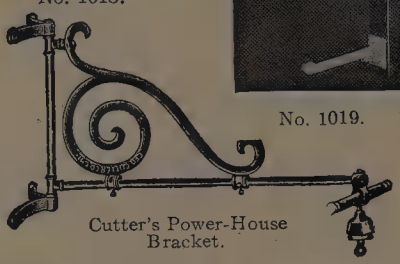
		Net, Each.
No. S-1326.	Complete, except rope, 6-ft.	$2.50
,, S-1327.	Same, 3-ft.	2.30
Palace Outrigger with Triple Insulation Arm.		
No. S-1328.	6-ft.....net, each,	$3.25
,, S-1329.	Same, 3-ft..... ,, ,,	3.50
Palace Outrigger with Cut-Out Pulley.		
No. S-1330.	6-ft.....net, each,	$6.70
,, S-1331.	Same, 3-ft..... ,, ,,	6.50



No. 1018.



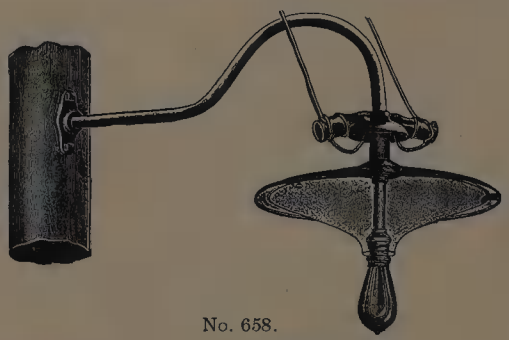
No. 1019.



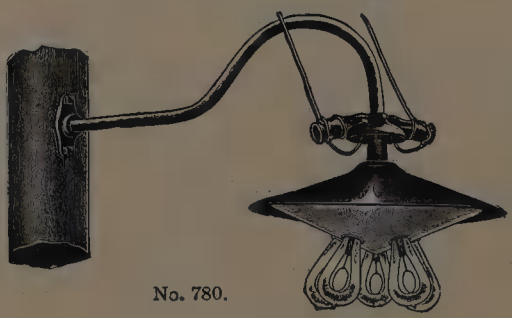
Cutter's Power-House Bracket.



Showing Insulated Part of S.-H. Street Fixture.



No. 658.



No. 780.

FIXTURES, **Pole and Wall** (Continued).

Cutter's Power-House Bracket.

No. S-1332. A swinging form of the "station bracket," 3-ft., complete with high voltage cross arm, net, each, $2.40

Lundin Small Arc Lamp Bracket.

No. 1018. Very ornamental.....each, $24.00
,, 1019. Ornamental, with absolute cutout ..... each, 30.00

FIXTURES, **Pulley Pole** (see Fixtures, pole and wall).

FIXTURES, **Street** (see Hoods).

No. 1 Stuart-Howland Street Fixture.

Consists of a 4-foot goose neck of ¾-inch iron pipe with shade and deflector, insulator fittings, etc., complete except socket and lamp.....each, $3.00

The part of the insulator that holds up the hood is protected by the iron bell and the leading-in wires enter under the petticoat of the insulator. Especially designed for high voltage circuits. The separate parts may be had as follows:

Malleable pole flange	each,	$ .18
4-ft. goose neck, ¾-in. pipe	,,	.78
Malleable bell with screws	,,	.40
D. G. D. P. glass insulator	,,	.07
Malleable threaded stem	,,	.50
2 porcelain insulators and screws	,,	.07
Top hood (No. 653)	,,	.50
Lower deflector (No. 654)	,,	.50
Washer	,,	.04
Nipple	,,	.05
Lock nut	,,	.03

No. 658 Regular Street Fixture.

A strong durable waterproof fixture with 4-foot goose neck of ¾-inch pipe and all fittings except socket and lamp (hood not insulated).....each, $2.10

Cluster Street Fixture.

Same as No. 658 regular fixture except the deflector which is furnished complete with porcelain sockets securely fastened to it.

No.		Each.
780	5-lt. fixture complete except sockets,	$3.80
781	4 ,, ,, ,, ,, ,,	3.65
782	3 ,, ,, ,, ,, ,,	3.50
783	2 ,, ,, ,, ,, ,,	3.35

Cluster Shades only for Above.

No. 784	5-lt., including sockets....each,	$2.40
,, 785	4 ,, ,, ,, ... ,,	2.25
,, 786	3 ,, ,, ,, ... ,,	2.10
,, 787	2 ,, ,, ,, ... ,,	1.95



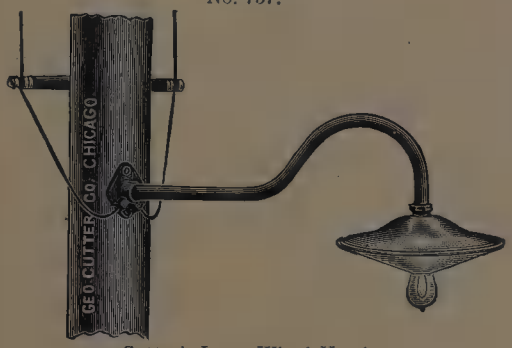
No. 336.



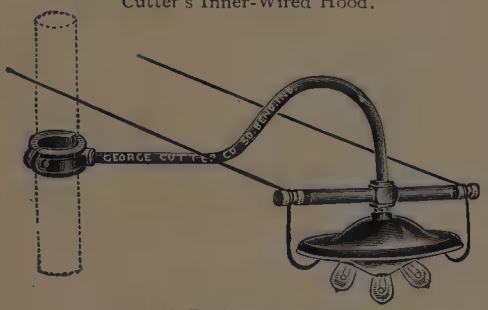
No. 6565.



No. 757.



Cutter's Inner-Wired Hood.



Cutter's Railway Streethood.



Cutter's Hotel Hood.



Cutter's Boulevard Streethood.

FIXTURES, **Street** (Continued).

No. 336. Dale's Wireless Cluster Street Bracket.

Complete with iron goose neck, 16-inch hood, cluster, and fittings except lamps.

2-light fixture	each,	$4.00
3 ,, ,,	,,	4.25
4 ,, ,,	,,	4.50
5 ,, ,,	,,	4.75

No. 6565. Dale's Metal Waterproof Hoods.

To fit clusters used in above fixtures.

14-inch hood	each,	$1.25
16 ,, ,,	,,	1.50
18 ,, ,,	,,	2.00

No. 2. Stuart-Howland Street Fixture.

A short (18-inch) fixture with goose neck of ⅜-inch iron pipe, complete with shade and deflector but no socket or lamp ..... each, $1.80

Hood and Deflector for Street Fixtures.

The hood is made of heavy hard copper and the deflector of porcelain enameled on steel.

These may be used on the S.-H. Nos. 1 and 2 and the regular No. 658 fixtures described above in place of the ordinary shade and deflector.

No. 757. Copper hood only	each,	$ .85
,, 655. Porcelain enameled steel deflector only	each,	.90

Cutter's Inner-Wired Hood.

Price does not include wiring, nor the brace-arm at back of pole.

No.		Net Each.
No. S-1333	With Edison socket	$1.45
,, S-1334	,, ⅜-inch nozzle	1.20
,, S-1335	,, ⅛ ,, ,,	1.20
,, S-1336	Without nozzle	1.10

Cutter's Railway Streethood.

For Iron Poles of 5-Inch Bore.

No.		Net each.
S-1337	5-lt., Ed. base sockets and clamp,	$2.90
S-1338	3 ,, same	2.40
S-1339	2 ,, ,,	2.15
S-1340	1 ,, ,,	1.90

For Iron Poles of 6-Inch Bore.

No.		Net Each.
S-1341	5-lt., Edison base sockets	$3.00
S-1342	3 ,, ,, ,, ,,	2.50
S-1343	2 ,, ,, ,, ,,	2.25
S-1344	1 ,, ,, ,, ,,	2.00

Cutter's Hotel Hood.

Cast scroll bracket holding lamp 3 feet from wall.

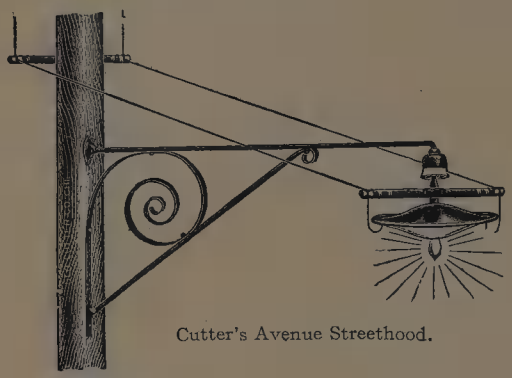
No.		Net, ea.
S-1345.	With porcelain shell, Edison socket,	$2.25
S-1346.	Without socket or nozzle	2.00

Cutter's Boulevard Streethood.

With 5-ft. bracket and wrought-iron scroll trimmings.

No.		Net ea.
S-1348.	With brace arm and Edison socket,	$2.50
S-1349.	With socket or nozzle	2.25
S-1350.	Without brace arm, with Edison socket	2.22
S-1351.	Same without socket or nozzle	1.97

FIXTURES, Street (Continued).

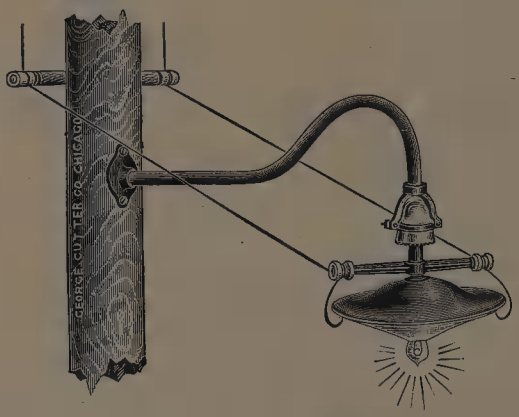


Cutter's Avenue Streethood.

Cutter's Avenue Streethood.

With high voltage insulator to adapt the fixture for use on high potential circuits.

No.		Net, ea.
S-1352.	Without brace arm, with Edison porcelain shell socket	$2.70
S-1353.	Without socket or nozzle	2.45

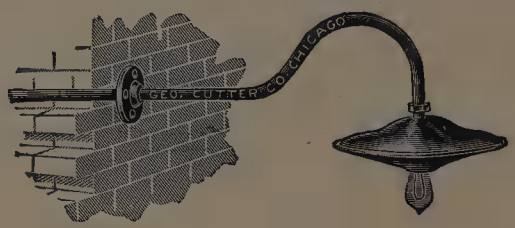


Cutter's Pacific Streethood.

Cutter's Pacific Streethood.

A 3-foot bracket fixture with an iron cross arm over the hood and a double-petticoated glass insulator between this cross arm and the supporting goose neck.

No.		Net, ea.
S-1354.	With Edison (multiple) socket but without brace arm	$2.07
S-1355.	Same with film socket	2.82
	Porcelainized reflector, extra	.40



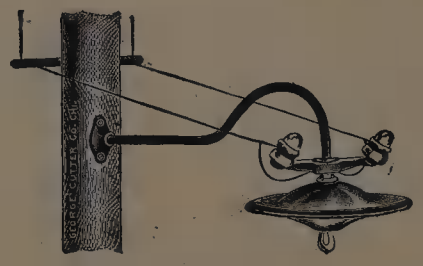
Cutter's Wall Hood.

Cutter's Wall Hood.

Has a pipe extending one foot inside of the flange and holding the lamp 3 feet from the wall.

No.		Net, ea.
S-1356.	With porcelain shell, Edison base socket	$1.55
S-1357.	Same with T.-H. base socket	1.55
S-1358.	Same without socket or nozzle	1.30

For longer forms, add 7c. per extra foot.



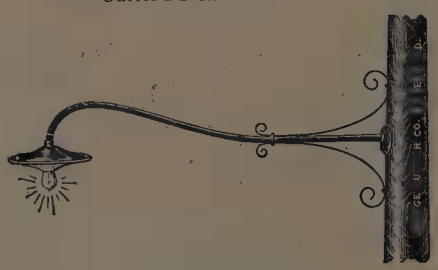
Cutter's Iron Arm Hood.

Cutter's Iron Arm Hood.

Same as the standard streethood excepting the cross arm, which is of iron, supporting double petticoated insulators on wood pins.

No.		Net, ea.
S-1359.	Without brace arm, but with 3-ft. goose neck and T.-H. porcelain socket	$1.70
S-1360.	Same with Edison socket	1.70
S-1361.	Same with West. socket	1.70
S-1362.	Same without socket or nozzle	1.45

For brace arms for back of pole add 28c.

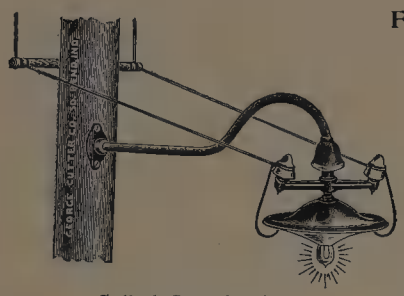


Cutter's Elite Streethood.

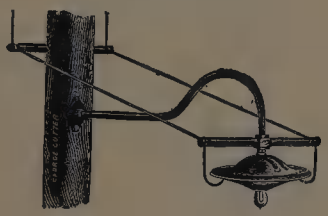
Cutter's Elite Streethood.

A 5-foot ornamental bracket, with hood and reflector arranged for inner wiring and with heavy ($\frac{3}{4}$-in. bore) piping.

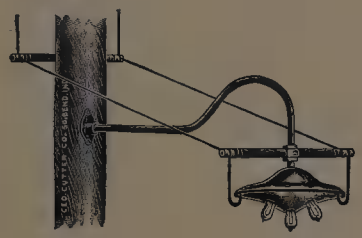
No.		Net, ea.
S-1363.	With Edison socket	$2.00
S-1364.	With T.-H. socket	2.00
S-1365.	With West. socket	2.00
S-1366.	With series nozzle only	1.85



Goliath Streethood.



Cutter's Standard Streethood.



Cutter's Many Light Streethood.

FIXTURES, **Street** (Continued).

Cutter's Goliath Streethood.

An extra heavy fixture with a 5-foot goose neck of ¾-inch pipe, a high voltage Hood insulator, iron cross arm, porcelainized reflector, and film socket.

No.		Net, ea.
S-1367.	Cutter's Goliath streethood.....	$3.82

Cutter's Standard Streethood.

A 3-foot bracket streethood with waterproof hood, hinged reflector, and porcelain shell socket, curved pole plate, and enameled arm.

No.		Net, ea.
S-1368.	With brace arm and T.-H. socket, ...	$1.85
S-1369.	Same with Edison socket	1.85
S-1370.	Same, with West. socket	1.85
S-1371.	Same without socket or nozzle	1.60
S-1372.	Without brace arm, but with T.-H. socket .	1.57
S-1373.	Same, with Edison socket	1.57
S-1374.	Same, with West. socket	1.57
S-1375.	Same, without socket or nozzle	1.32

Cutter's Many Light Streethood

Has special reflector and socket arrangement, making it easily wired and quickly put up.

No. S-1376.	Complete with Ed., T.-H., or West. socket and brace arm back of pole ..	net, each,	$2.35
No. S-1377.	Same, for 4 lights.....	,,	2.60
,, S-1378.	Same for 5 lights.....	,,	2.85
,, S-1379.	With sockets but without brace arms,	net, each,	2.07
No. S-1380.	Same for 4 lights.....	,,	2.32
,, S-1381.	,, ,, 5 ,, ...	,	2.57

Porcelainized reflector, 40 cents extra.

Benjamin Weatherproof Fixtures.

Benco streethood, 10-inch enameled steel reflector.



No. 5101.

Complete Fixture.

Fixture includes weatherproof aluminum socket; goose neck, — consisting of three feet of ½-inch iron pipe, overhanging 30 inches, — pole fitting and enameled steel reflector. Goose neck and fitting are enameled black.

No.		Std. Pkg. Quan.	Net Wt. in Lbs.	List Price.
5101.	1-lt. complete, with 10-in. enameled steel reflector.....	12	47	$2.65
5151.	1-lt. complete, with 15-in. enameled steel reflector.....	12	59	3.65

Streethood Only.

Benco streethood is a combination weatherproof aluminum socket and enameled steel reflector device. Both are tapped for ½-inch pipe and form a perfect weatherproof joint. It is especially adapted for out-door service — exposed places.

No.		Std. Pkg. Quan.	Net Wt. in Lbs.	List Price.
4101.	1-lt. with 10-in. enam. steel reflector,	12	11	$1.75
4151.	1 ,, ,, 15 ,, ,, ,, ,,	12	23	2.75

Multiple or Series Fixtures Complete.

Polished aluminum is standard finish for all weatherproof bodies.

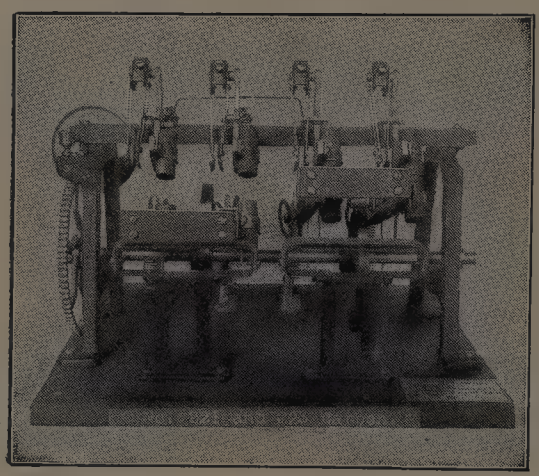
Fixture includes weatherproof cluster, goose neck — consisting of three feet ½-inch iron pipe, overhanging 30 inches; pole fitting and enameled steel reflector.

Type 1 body — 15-inch enameled steel reflector.

(*Continued on next page.*)



No. 4015.



D. P. Flasher.

FIXTURES, Street.

Benjamin Weatherproof Fixtures

(Continued).

Multiple or Series Fixtures Complete.

No.		Std. Pkg. Quan.	Net Wt. in Lbs.	List Price.
5012	2-light multiple	12	70	$4.50
5013	3 ,, ,,	12	70	4.75
5014	4 ,, ,,	12	70	5.00
5015	5 ,, ,,	12	70	5.25
5016	6 ,, ,,	12	70	5.50
5012½	2-light series	12	71	4.55
5013½	3 ,, ,,	12	71	4.85
5014½	4 ,, ,,	12	71	5.10
5015½	5 ,, ,,	12	71	5.35

Streethood Only.

Socket shells are of copper. Flange tapped for ½-inch pipe is bolted to cluster back. Reflector between is protected by two rubber gaskets, — one above, one below, — thus securing watertight joint. Reflectors are of heavy fire-enamel steel, white, insuring good reflecting surface and long wear.

Fixture includes weatherproof cluster, flange, enameled steel reflector only.

No.		Std. Pkg. Quan.	Net Wt. in Lbs.	List Price.
4012	2-light multiple	12	32½	$3.60
4013	3 ,, ,,	12	32½	3.85
4014	4 ,, ,,	12	32½	4.10
4015	5 ,, ,,	12	32½	4.35
4016	6 ,, ,,	12	32½	4.60
4012½	2-light series	12	33½	3.65
4013½	3 ,, ,,	12	33½	3.95
4014½	4 ,, ,,	12	33½	4.20
4015½	5 ,, ,,	12	33½	4.45

FLANGE (see Plates, bracket, and Arms, bracket).

FLASH Shades, Green (see Shades).

FLASHERS.

Dull's Flashers.

Flashers are used to cause a flashing effect on signs or electric displays of any kind. Two different styles are listed, each type designed for some special purpose, as described.

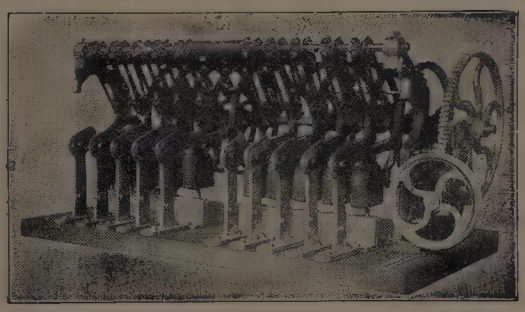
Double Pole Flashers.

Double pole carbon flashers, made for 2- or 3-wire systems, with a capacity on each switch of 15, 30, or 60 amperes, are intended for use on signs or displays where same are to flash on and off as a whole, to flash on sentences one word at a time, or, in case of a double-sided sign, to flash each side alternately. Installed and cut into mains before same are sub-divided into circuits. Arc, when flasher is breaking load, is taken on adjustable carbon points. Nothing to wear out and requires practically no attention.

15 Amperes, 2-Wire. No.	Switch.	Price.	**30 Amperes, 2-Wire.** No.	Switch.	Price.
121	1	$50.00	123	1	$60.00
221	2	64.00	223	2	78.00
321	3	78.00	323	3	96.00
421	4	92.00	423	4	114.00
30 Amperes, 3-Wire.			**60 Amperes, 3-Wire.**		
131	1	$70.00	133	1	$80.00
231	2	92.00	233	2	106.00
331	3	114.00	333	3	132.00
431	4	136.00	433	4	158.00

Motors are not included in above prices.

FLASHERS.



S. P. Flasher,

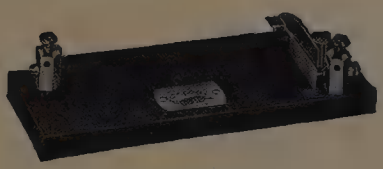
Dull's Flashers (Continued).

Single Pole Flashers.

Single-pole flashers have a capacity of 5 amperes on each switch, are adapted especially for spelling out signs, one letter at a time, and are adjustable to several combinations by means of differently-shaped cams. When not otherwise instructed, these flashers are set up to flash on one letter at a time until all are lighted, hold a few seconds and go out. Equipped with auxiliary break, same as double-pole carbon, taking the arc on indestructible steel points. A flasher that will outwear any other one built, is noiseless and efficient.

No.	Switches.		No.	Switches.	
2	2	$46.00	7	7	$64.00
3	3	48.00	8	8	68.00
4	4	52.00	9	9	72.00
5	5	56.00	10	10	76.00
6	6	60.00	Each add. sw.,		4.00

Motors are not included in above prices.



Thermo Flasher.

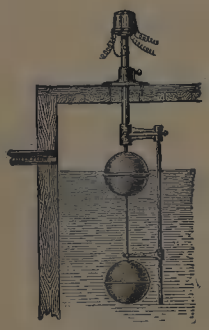
Campbell Thermo Flasher No. S-1382 (see Lamps, incandescent Hylo).

Flashes, on alternating current 12–16 C.P. lamps; on direct current 3–16 C.P. lamps. Heavily constructed. Flashes regularly. Will hold its adjustment..... each, $1.00

FLASK Heaters (see H).
FLAT Irons (see I).
FLETCHER Goods (see Brackets, Pulleys, Locks, etc.).
FLEXIBLE Brackets (see Brackets, flexible, and Arms, bracket).
FLEXIBLE Conduit (see C).
FLEXIBLE Cord (see Conductor, flexible, and Cord).
FLEXIBLE Tube (see Conduit and Tube, speaking).
FLEXIBLE Stand Lamp (see L).
FLEXIBLE Wire (see W).
FLOATS.

Neu's Tell-Tale Floats.

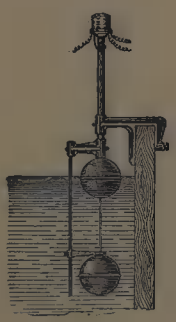
These floats are used in connection with an electrical alarm or visual signal, to indicate when the contents of a tank or reservoir has reached a maximum or minimum level.



No. 1.

No. 1. High and Low Water Floats for Closed Tanks.

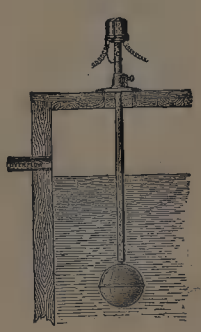
The regular size of these floats is 12 inches between upper and lower walls. They can be furnished, however, with any distance desired up to 12 feet between balls. In ordering please state distance between high and low water required.....each, $12.00



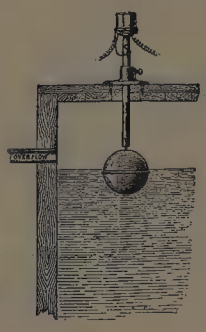
No. 2.

No. 2. High and Low Water Floats for Open Tanks.

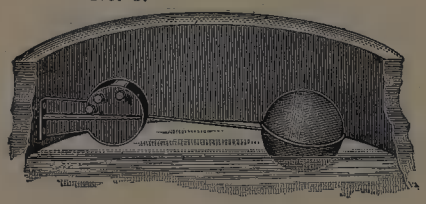
The size as well as the price of this style is the same as for closed tanks, and in ordering the same data should be given. These can be screwed on any iron or wooden tank and require no further adjustment.....each, $12.00



No. 3.



No. 4.



Jones Tank Alarm.



P. C. & W. Float.



Raising Fork.

FLOATS.

Neu's Tell-Tale Floats (Continued).

No. 3. Low Water Floats.

Where it is only desired to give an alarm when the level of the water has gone down to a certain point, these floats answer the purpose admirably. They are made in any length required. In ordering state distance from top of tank to where alarm is desired....each, $7.00

No. 4. High Water Floats.

These floats are for use in connection with an alarm to prevent overflow. They, like the low-water floats, are furnished in any lengths desired and are made for open or closed tanks, the former having a clamp instead of the flange.....each, $7.00
Extra lengths on above floats.....per ft., .40

The Jones Tank Alarm.

Especially adapted for sprinkler systems. In use in some of the largest factories and warehouses in the country.

It is of simple construction, absolutely reliable, all parts metal, and contact points enclosed.

Designed to be placed inside of a water tank or reservoir, and connected by a local bell system with the engineer's or watchman's department, ringing the alarm whenever the water is at high- or low-water mark. Full particulars must be given when ordering.

No. S-1383. Float or tank alarm.....each, $10.00

P. C. & W. High and Low Water Alarm.

This alarm is so made that it can be applied to any form of tank. In ordering, give dimensions of tank and point from bottom to give low-water alarm, and point from top for high-water alarm; movable arm can then be made accordingly. A two number annunciator can be used with this alarm to advantage.

No. S-1384. P. C. & W. float.....each, $4.50

FLOOR Pusher (see P).

FLOOR Receptacles (see R).

FLUSH Receptacles (see R).

FLUX (see Paste, Sticks, Salts).

FOIL, Tin. Prices on application.

FOOD Warmers (see W).

FOOTLIGHT Shades (see S).

FOOT Warmers (see W).

FORKS and Spoons for Electric Dishes (see Dishes, electric chafing).

FORKS, Raising.

Raising Forks.

Made from bass wood, straight grain. Forks from crucible steel.

No. 317	12-ft. forks	per doz.,	$18.00
,, 318	14 ,, ,,	,,	20.00
,, 319	16 ,, ,,	,,	22.00
,, 320	18 ,, ,,	,,	24.00
,, 321	20 ,, ,,	,,	26.00

FRICTION Tape (see T).



Fringes.

FRINGE.

Seeded Bead Fringe, No. S-1385.

Beads used in this fringe are made from colored glass, not crystal glass stained.

Fringe 3 or 4 inches deep is furnished in dark or light green, ruby, crystal, gold, etc. Per Yd.

No. S-1385....3-inch fringe...$ .90
,, S-1386....4 ,, ,, ... 1.00

Fringe 5 inches deep is furnished in green, ruby, or gold. Per Yd.

No. S-1387....5-inch fringe...$1.20

FROGS (see also Crossings and Replacers, car).

G. E. Trolley Frogs.

Manufactured exclusively by the General Electric Company.

For ordinary city service, with turnout radii not exceeding about 50 feet, the 20° frogs are suitable, but with the longer radii introduced by suburban and interurban work, smaller divergence angles are necessary.

The 20° frogs are especially designed for use with Nos. 0 and 00 wire, but will admit the use of No. 000, round or grooved wire.

The 15° and 8° frogs are designed for wire up to and including No. 0000, round or grooved.



No. 17346.



No. 19400.



No. 19478.



No. 37487.



No. 19460.



No. 16395.

Trolley Frogs, Form G, 20°.

No. 17347. 20° frog, Form G, right-hand . . .each, $7.50
No. 17348. 20° frog, Form G, left-hand ....each, 7.50
No. 17346. 20° frog, Form G, V .....each, 7.50
No. 19400. 20° three-way frog, Form G... each, 10.00

Trolley Frogs, Form G, 15°.

No. 19478. 15° frog, Form G, right-hand....each, $10.00
No. 19479. 15° frog, Form G, left-hand.....each, 10.00
No. 19477. 15° frog, Form G, V .....each, 10.00
No. 37487. 15° three-way frog .....each, 12.50

Trolley Frogs, Form G, 8°.

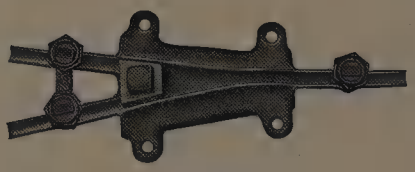
No.	Each.
19459. 8° frog, Form G, right-hand.....	$15.00
19460. 8° frog, Form G, left-hand.....	15.00
19458. 8° frog, Form G, V...	15.00

Trolley Frogs, Form G, Drawbridge.

No.	Each.
16395. Drawbridge frog, Form G, complete, ⅝-in. tap,	$13.50
15993. Drawbridge frog, without spring contact....	10.00

20° Form G Frogs, with Four Pull-Off Rings.

These frogs have four pull-off rings for the finer adjustment of the position of the frogs, otherwise they are identical with the standard Form G frogs.



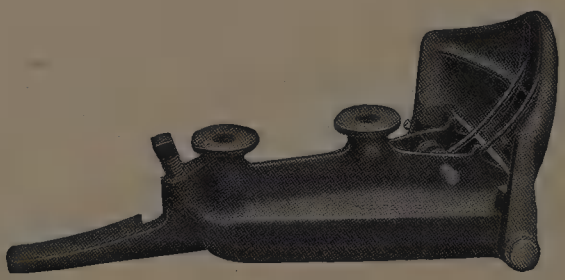
No. 29132.



No. 29131.



No. 29127.



No. 17430.



No. 17442.



Lineman's Furnace.

FROGS.

G. E. Trolley Frogs (Continued).

No.		Each.
29133.	20° frog, with four pull-off rings, right-hand	$7.50
29134.	20° frog, with four pull-off rings, left-hand	7.50
29132.	20° frog, with four pull-off rings, V	7.50

15° Form G Frogs with Four Pull-Off Rings.

No.		Each.
29130.	15° frog, with four pull-off rings, right-hand	$10.00
29131.	15° frog, with four pull-off rings, left-hand	10.00
29129.	15° frog, with four pull-off rings, V	10.00

8° Form G Frogs with Four Pull-Off Rings.

No.		Each.
29127.	8° frog, with four pull-off rings, right-hand	$15.00
29128.	8° frog, with four pull-off rings, left-hand	15.00
29126.	8° frog, with four pull-off rings, V	15.00

Trolley Frogs, Form F.

The Form F frogs are held in place by lips which are folded over the wire and soldered. They are adapted for use with Nos. 0 and 00 wire, and render effective service for certain simpler conditions, but for heavy construction, especially for high speed service, the Form G devices are recommended as greatly superior.

No.		Each.
17440.	20° frog, Form F, right-hand	$7.50
17441.	20° frog, Form F, left-hand	7.50
17442.	20° frog, Form F, V	7.50
17430.	Drawbridge frog, Form F, complete, ⅝-inch tap	13.50
17431.	Drawbridge frog, without spring contact	10.00

FROGS, Replacing (see Replacers, car).
FROSTINE (see Colorine).
FRYING Kettles (see K).
FULLER Battery (see Batteries, wet).
FURNACE, Gasoline (see Torches).
FURNACE, Lineman's.

Lineman's Charcoal Furnace.

A charcoal soldering furnace of galvanized iron for melting solder and heating soldering irons.

Opening in top admits 6-inch melting pot. Furnace is provided with grate.

No. 374. With removable cast-iron top.....each, $8.00
Shipping weight, 12 pounds.



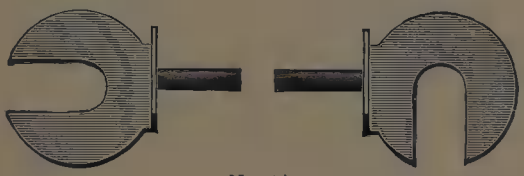
No. 1B.



No. 2½B.



No. 3A.



No. 4A.



No. 5A.



Railway Fuse.

FUSE BLOCKS (see Cut-Outs, Arresters, and Fuses).

FUSE Box, Primary (see B).

FUSE and Fuseless Rosettes (see R).

FUSES, Blasting (see Dynamo, blasting).

FUSE Repair Kit (see K).

FUSELESS Rosettes (see R).

FUSES, see following headings:

Fuses, Link.
,, Wire.
,, Enclosed.
,, ,, Bases.

FUSES, Link.

Shawmut Tested Fuse Links.

Prices per 100.

NOTE. — "A" terminals have one slot parallel and one at right angles to the length of the fuse.
"B" terminals have both slots parallel to length of fuse.
"C" terminals have both slots at right angles to length of fuse.

No. 1 terminal has ⅛-in. slots.
,, 2½ ,, ,, 1/16 ,, ,,
,, 3 ,, ,, 3/32 ,, ,,
,, 4 ,, ,, ¼ ,, ,,
,, 5 ,, ,, ⅜ ,, ,,
,, 6 ,, ,, ½ ,, ,,
,, 8 ,, ,, ¾ ,, ,,
,, 10 ,, ,, 1⅛ ,, ,,
Railway fuses have ¼-in. slots.

Amperes.	Term No.	To 1½-inch Centres.	To 3½-inch Centres.	To 5-inch Centres.
1 to 5	1	$2.00	$3.00	$4.00
5 ,, 30	2½	3.00	4.00	5.00
35 ,, 100	3	3.00	5.00	6.00
35 ,, 100	4	4.00	6.00	8.00

Standard package of above, 100 of one size.

Amperes.	Term No.	To 2½-inch Centres.	To 5-inch Centres.	To 8-inch Centres.
25 to 100	5	$10.00	$15.00	$20.00
110 ,, 200	5 or 6	12.00	18.00	24.00
210 ,, 400	6	15.00	22.50	30.00
410 ,, 600	6	20.00	30.00	40.00

Standard package of above, 50 assorted.

Amperes.	Term No.	To 5-inch Centres.	To 8-inch Centres.
100 to 400	8	$25.00	$40.00
410 ,, 600	8	40.00	60.00
610 ,, 800	8	55.00	80.00
810 ,, 1000	8	75.00	100.00

Standard package of above, 25 assorted.

Amperes.	Term No.	To 4-inch Centres.	To 8-inch Centres.
100 to 200	10C	$40.00	$60.00
210 ,, 400	10C	45.00	70.00
410 ,, 600	10C	50.00	80.00
610 ,, 800	10C	60.00	90.00
810 ,, 1000	10C	75.00	110.00

Standard package of above, 25 assorted.

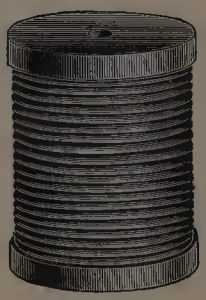
Fuses larger than 1,000 amperes will be charged at a proportionate advance in price.

Standard Railway Fuses.

	Per 1,000.
100 amps. flat railway, 2¼-in. centres	$35.00
150 ,, ,, ,, 2¼ ,, ,,	42.00
200 ,, ,, ,, 2¼ ,, ,,	50.00
250 ,, ,, ,, 2¼ ,, ,,	60.00

Standard package, 500 of one capacity.

FUSES, Wire.



Fuse Wire.

Shawmut Tested Fuse Wire.

Carrying Capacity, Amperes.	Standard Length, Inches.	Price per Pound.	Diameter in Mils.	Feet per Pound.
¼	1½	$9.00	10	2700
½	1½	2.75	17	950
1	1½	1.10	20	670
1½	1½	1.05	23	510
2	1½	1.05	25	430
3	1½	1.00	27	370
4	1½	1.00	30	300
5	2	1.00	35	220
6	2	.85	38	185
7	2	.85	44	140
8	2	.80	47	120
9	2	.80	54	93
10	2	.80	58	80
12	3	.80	62	70
14	3	.80	68	60
15	3	.75	70	52
16	3	.75	75	49
18	3	.75	80	43
20	4	.75	85	36
25	4	.75	90	32
30	4	.75	100	26
35	4	.75	110	22
40	4	.75	120	18
45	4	.75	125	17
50	4	.75	145	12.5
60	5	.70	160	10.3
70	5	.70	175	9.0
75	5	.70	180	8.3
80	5	.70	190	7.5
90	5	.70	200	6.7
100	5	.70	220	5.5

Standard package consists of 10 pounds or over, assorted sizes.
One fourth to 35-ampere fuse wire wound on 1-pound spools.
Forty to 100-ampere wound on 2-pound spools.
All fuse wire neatly packed in pasteboard boxes, plainly marked.

Shawmut Tested Fuse Ribbon.

Carrying Capacity, Amperes.	Standard Length, Inches.	Price per Pound.	Size in Inches.	Feet per Pound.
50	4	$ .65	.36 x .047	13.0
60	4	.65	.44 x .047	10.0
75	4	.65	.50 x .047	9.1
90	4	.65	.44 x .078	6.1
100	4	.65	.44 x .094	5.2
115	4	.60	.375 x .125	4.4
125	4	.60	.50 x .094	4.4
150	4	.60	.57 x .094	4.0
175	4	.60	.64 x .094	3.5
190	4	.60	.75 x .094	3.0
200	4	.60	.875 x .094	2.6
225	4	.60	1. x .094	2.2
250	4½	.60	1. x .110	1.9
300	4½	.60	1. x .15	1.4
400	4½	.60	1. x .20	1.1
500	4½	.60	1.25 x .20	.85
600	4½	.60	1.50 x .20	.70

Standard package consists of 10 pounds or over, assorted sizes.
Ribbon up to and including 150 amperes put on 2½-pound spools.
From 150 amperes to 500 amperes on 5-pound spools.
Six hundred amperes on 10-pound spools.

FUSES, Enclosed.

Enclosed Fuses, 250 Volts, N. E. Code.

For convenience in ordering we list the different makes of interchangeable National Electrical Code fuses under the manufacturers' own numbers. Intermediate sizes at same prices.



Sizes 0 to 30 Amps.



Sizes 35 to 60 Amps.



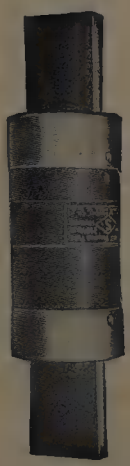
Sizes 65 to 100 Amps.



Sizes 110 to 200 Amps.



Sizes 225 to 400 Amps.



Sizes 425 to 600 Amps.

Shawmut No.	G. E. No.	D. & W. No.	Noark No.	Amperes.	Std. Pkg.	List, Each.
2001	34949	91125	2602	3	100	$ .25
		91126	2603	4	100	.25
2002	34950	91127	2604	5	100	.25
2003		91128	2605	6	100	.25
		91130	2606	7	100	.25
2004	34951	91131	2607	8	100	.25
		91132	2608	9	100	.25
2005	34952	91133	2609	10	100	.25
2006	34953	91134	2610	12	100	.25
2007	34954	91135	2611	15	100	.25
2008	34955	91136	2612	20	100	.25
2009	34956	91137	2613	25	100	.25
2010	34957	91138	2614	30	100	.25
	Length over all, 2 in. Diameter of tube, ½ in. Diameter of ferrules, .55 in. Above sizes not refillable.					
2011	34958	91139	2615	35	100	$ .33
2012	34959	91140	2616	40	100	.33
2013	34960	91141	2617	45	100	.33
2014	34961	91143	2618	50	100	.33
2015	34962	91146	2619	55	100	.33
2016	34963	91147	2620	60	100	.33
	Length over all, 3 in. Diameter of tube, ¾ in. Diameter of ferrules, .81 in. Above sizes not refillable.					
2017	34965	91149	2650	65	50	$ .86
2018	34966	91150	2651	70	50	.86
2019	34967	91151	2652	75	50	.86
2020	34968	91152	2653	80	50	.86
		91153	2654	85	50	.86
2021	34969	91154	2655	90	50	.86
		91155	2656	95	50	.86
2022	34970	91156	2657	100	50	.86
	Length over all, 6 in. Diameter of fuse tube, 1 in. Thickness of terminal, ⅛ in. Length over ferrules, 3⅞ in. Width of terminal, ¾ in. Refilling above size, 57 cents each.					
2023	34972	91157	2658	110	25	$2.00
2024	34973	91158		120	25	2.00
2025		91161	2659	125	25	2.00
	34974			130	25	2.00
	34975			140	25	2.00
2026	34976	91162	2660	150	25	2.00
	34977			160	25	2.00
	34978			170	25	2.00
2027		91163	2661	175	25	2.00
	34979			180	25	2.00
	34980			190	25	2.00
2028	34981	91164	2662	200	25	2.00
	Length over all, 7¼ in. Diameter of fuse tube, 1½ in. Thickness of terminal, 7/16 in. Length over ferrules, 4⅜ in. Width of terminal, 1⅛ in. Refilling above sizes, 90 cents each.					
2029	34983	91165	2663	225	25	$3.40
2030	34984	91166	2664	250	25	3.40
2031	34985	91167	2665	275	25	3.40
2032	34986	91168	2666	300	25	3.40
	34987	91169	2667	325	25	3.40
2033	34988	91170	2668	350	25	3.40
	34989	91171	2669	375	25	3.40
2034	34990	91172	2670	400	25	3.40
	Length over all, 8¾ in. Diameter of fuse tube, 2 in. Thickness of terminal, ¼ in. Length over ferrules, 4⅞ in. Width of terminal, 1⅝ in. Refilling above sizes, $1.48 each.					
	36472			425	10	$5.20
2035	36473	91173	2671	450	10	5.20
	36474			475	10	5.20
2036	36475	91174	2672	500	10	5.20
	36476			525	10	5.20
2037	37754	91175	2673	550	10	5.20
	36477			575	10	5.20
2038	36478	91176	2674	600	10	5.20
	Length over all, 10½ in. Diameter of fuse tube, 2½ in. Thickness of terminal, ¼ in. Length over ferrules, 5⅞ in. Width of terminal, 2 in. Refillng above sizes, $2.00 each.					



Sizes 3 to 30 Amps.



Sizes 35 to 60 Amps.

FUSES, Enclosed (Continued).

Enclosed Fuses, 600 Volts, N. E. Code.

Shawmut No.	G. E. No.	D. & W. No.	Noark No.	Amperes.	Std. Pkg.	List, Each.
2039	34992	28084	4602	3	100	$ .38
		28085	4603	4	100	.38
2040	34993	28086	4604	5	100	.38
2041		28087	4605	6	100	.38
		28088	4606	7	100	.38
2042	34994	28089	4607	8	100	.38
		28090	4608	9	100	.38
2043	34995	28091	4609	10	100	.38
2044	34996	28092	4610	12	100	.38
2045	34997	28093	4611	15	100	.38
2046	34998	28094	4612	20	100	.38
2047	34999	28095	4613	25	100	.38
2048	35100	28096	4614	30	100	.38

Length over all, 5 in. Diameter of tube, ¾ in. Diameter of ferrules, .81 in. Above sizes not refillable.

2049	35102	28097	4615	35	100	$ .44
2050	35103	28098	4616	40	100	.44
2051	35104	28099	4617	45	100	.44
2052	35105	28100	4618	50	100	.44
2053	35106	28101	4619	55	100	.44
2054	35107	28102	4620	60	100	.44

Length over all, 5½ in. Diameter of tube, 1 in. Diameter of ferrules, 1.05 in. Above sizes not refillable.



Sizes 65 to 100 Amps.



Sizes 110 to 200 Amps.

2055	35108	28103	4650	65	50	$1.20
2056	35109	28104	4651	70	50	1.20
2057	35110	28105	4652	75	50	1.20
2058	35111	28106	4653	80	50	1.20
		28107	4654	85	50	1.20
2059	35112	28108	4655	90	50	1.20
		28109	4656	95	50	1.20
2060	35113	28110	4657	100	50	1.20

Length over all, 8 in. Diameter of fuse tube, 1¼ in. Thickness of terminal, ⅛ in. Length over ferrules, 5⅛ in. Width of terminal, ¾ in. Refilling above sizes, 80 cents each.

2061	35115	28111	4658	110	25	$2.50
2062	35116	28112		120	25	2.50
2063		28113	4659	125	25	2.50
	35117			130	25	2.50
	35118			140	25	2.50
2064	35119	28114	4660	150	25	2.50
	35120			160	25	2.50
	35121			170	25	2.50
2065		28115	4661	175	25	2.50
	35122			180	25	2.50
	35123			190	25	2.50
2066	35124	28116	4662	200	25	2.50

Length over all, 9¾ in. Diameter of fuse tube, 1¾ in. Thickness of terminal, 3/16 in. Length over ferrules, 6⅞ in. Width of terminal, 1⅛ in. Refilling above sizes, $1.20 each.



Sizes 225 to 400 Amps.



Sizes 425 to 600 Amps.

2089	35126	28117	4663	225	25	$5.25
2090	35127	28118	4664	250	25	5.25
2091	35128	28119	4665	275	25	5.25
2092	35129	28120	4666	300	25	5.25
	35130	28121	4667	325	25	5.25
2093	35131	28122	4668	350	25	5.25
	35132	28123	4669	375	25	5.25
2094	35133	28124	4670	400	25	5.25

Length over all, 11¾ in. Diameter of fuse tube, 2½ in. Thickness of terminal, ¼ in. Length over ferrules, 7⅞ in. Width of terminal, 1⅝ in. Refilling above sizes, $2.00 each.

	36480			425	10	$8.00
2097	36481	28125	4671	450	10	8.00
	36482			475	10	8.00
2098	36483	28126	4672	500	10	8.00
	36484			525	10	8.00
2099	37755	28127	4673	550	10	8.00
	36485			575	10	8.00
2100	36486	28128	4674	600	10	8.00

Length over all, 13½ in. Diameter of fuse tube, 3 in. Thickness of terminal, ¼ in. Length over ferrules, 8⅞ in. Width of terminal, 2 in. Refilling above sizes, $3.00 each.

FUSES, Enclosed (Continued).

Enclosed Fuses, 2,500 Volts.

Type A Screw Clamp Contact.

		Centres.	Std. Pkg.	Each.
No. S-1396	0 to 30 amps.	7¼ in.	100	$ .39
,, S-1397	31 ,, 60 ,,	8¼ ,,	100	.60
,, S-1398	61 ,, 100 ,,	9¼ ,,	50	1.20

Type P Spring Clip Contact.

	Amps.	Over all.	Diam. of Ferrules.	Std. Pkg.	Each.
No. S-1399	0 to 30	6¼ in.	.685	100	$ .37
,, S-1400	31 ,, 60	7¼ ,,	.935	100	.60

Shawmut Extended Terminal Fuses.



Extended Terminal Fuse.

Before the advent of National Electrical Code fuses the manufacturers of enclosed fuses made a type A or screw clamp contact fuse. In developing these fuses the manufacturers in many cases made them up in different lengths for fuses of a given capacity and voltage, which has continually been a source of annoyance.

To obviate this and to simplify the stock of type A fuses to be carried by a jobber, we have developed and completed a line of enclosed fuses having a long or extended terminal on one end. This terminal is made of soft copper and scored at different standard lengths. It may be cut off at any desirable point with pliers or hack saw.

250 Volts.

NOTE. — The fuses listed below are interchangeable on Noark, D. & W., and Shawmut Type "A" Blocks.

No.	Ampere Capacity.	Minimum Centres.	Maximum Centres.	Package Quantity.	List Price, Each.
S-1401	3 to 30	2½ in.	4 in.	100	$ .27
S-1402	31 ,, 61	4 ,,	5⅜ ,,	100	.40
S-1403	61 ,, 100	5 ,,	5 13/16 ,,	50	.86
S-1404	101 ,, 200	5⅜ ,,	6¾ ,,	25	2.00
S-1405	201 ,, 300	6¾ ,,	7 ,,	25	3.40
S-1406	301 ,, 500	6¾ ,,	8⅜ ,,	10	5.20

600 Volts.

No.	Ampere Capacity.	Minimum Centres.	Maximum Centres.	Package Quantity.	List Price, Each.
S-1407	3 to 25	4¾ in.	6 1/16 in.	100	$ .38
S-1408	26 ,, 50	5¾ ,,	6¾ ,,	100	.50
S-1409	51 ,, 100	6¾ ,,	7½ ,,	50	1.20
S-1410	101 ,, 200	7½ ,,	8¼ ,,	25	2.50
S-1411	201 ,, 300	8¼ ,,	8¾ ,,	25	5.25

FUSES, Enclosed, Bases.

Shawmut Enclosed Fuse Bases, 250 Volts, N. E. Code.

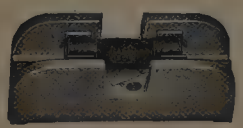
NOTE. — Fuses not included in price.



No. 20675.

No. 20675. 30 amps. S. P. porcelain fuse block ..... each, $ .40

No. 2067. 30 amps. S. P. slate fuse base, ,, .40
Dimensions, porcelain: 3½ in. long, 1¾ in. wide, 1⅝ in high; slate: 5 in. long, 1½ in. wide, 1½ in. high.
Takes fuses Nos. 2001–2010 inclusive.
Standard package, 50.



No. 20685.

No. 20685. 60 amps. S. P. porcelain fuse block ..... each, .75

No. 2068. 60 amps. S. P. slate fuse base, ,, .75
Dimensions, porcelain: 5⅞ in. long, 1⅞ in. wide, 2⅛ in high; slate: 6¼ in. long, 1½ in. wide, 1⅞ in. high.
Takes fuses Nos. 2011–2016 inclusive.
Standard package, 50.

(*Continued on next page.*)

FUSES, Enclosed, Bases.



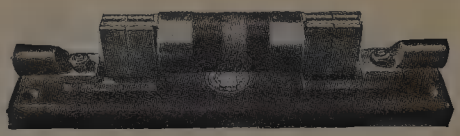
No. 2069.



No. 2070.



No. 2071.



No. 2072.



No. 20735.



No. 20745.



No. 2075.

Shawmut Enclosed Fuse Bases, 250 Volts, N. E. Code (Continued).

No. 20695. 100 amps., S. P. porcelain fuse block.....each, $1.40

No. 2069. 100 amps., S. P. slate fuse base ,, 1.40
Dimensions, porcelain: 10 in. long, 2 in. wide, 2 7/16 in. high; slate: 10 in. long, 2 in. wide, 2 7/16 in. high.
Takes fuses Nos. 2017–2022 inclusive.
Standard package, 50.

No. 2070. 200 amps., S. P. slate fuse base, each, 2.75
Dimensions: 12 in. long, 2¼ in. wide, 3 3/16 in. high.
Takes fuses Nos. 2023–2028 inclusive.
Standard package, 50.

No. 2071. 400 amps., S.P. slate fuse base, each, 7.00
Dimensions: 14¾ in. long, 2¾ in. wide, 3½ in. high.
Takes fuses Nos. 2029–2034 inclusive.
Standard package, 25.

No. 2072. 600 amps., S. P. slate fuse base, each, 11.00
Dimensions: 17¾ in. long, 3 in. wide, 4 1/16 in. high.
Takes fuses Nos. 2035–2038 inclusive.
Standard package, 10.

Shawmut Enclosed Fuse Bases, 600 Volts, N. E. Code.

No. 20735. 30 amps., S. P. porcelain fuse block..... each, $ .60

No. 2073. 30 amps., S. P. slate fuse base, ,, .60
Dimensions, porcelain: 6½ in. long, 2 in. wide, 2 3/32 in. high; slate: 8¼ in. long, 1¾ in. wide, 1⅞ in. high.
Takes fuses Nos. 2039–2048 inclusive.
Standard package, 50.

No. 20745. 60 amps., S. P. porcelain fuse block.....each, .90

No. 2074. 60 amps., S. P. slate fuse base, ,, .90
Dimensions, porcelain: 8⅜ in. long, 2¼ in. wide, 2 11/32 in. high; slate, 8½ in. long, 1¾ in. wide, 2 3/16 in. high.
Takes fuses Nos. 2049–2054 inclusive.
Standard package, 50.

No. 2075. 100 amps., S.P. slate fuse base each, 1.75
Dimensions: 12 in. long, 2 in. wide, 2 11/16 in. high.
Takes fuses Nos. 2055–2060 inclusive.
Standard package, 50.



No. 2076.



No. 2095.



No. 2096.



No. 2077.



No. 2101.



No. 2079.



No. 2102.



No. 2081.

FUSES, Enclosed, Bases.

Shawmut Enclosed Fuse Bases, 600 Volts, N. E. Code (Continued).

No. 2076. 200 amps., S. P. slate fuse base, each, $3.00
Dimensions: 14½ in. long, 2½ in. wide, 3 5/16 in. high.
Takes fuses Nos. 2061–2066 inclusive.
Standard package, 50.

No. 2095. 400 amps., S.P. slate fuse base, each, 8.00
Dimensions: 17¾ in. long, 3 in. wide, 3⅞ in. high.
Takes fuses Nos. 2089–2094 inclusive.
Standard package, 25.

No. 2096. 600 amps., S. P. slate fuse base, each, 12.00
Dimensions: 20¾ in. long, 3½ in. wide, 4½ in. high.
Takes fuses Nos. 2097–2100 inclusive.
Standard package, 10.

Shawmut Enclosed Fuse Cut-Outs, 250 Volts, N. E. Code.

NOTE. — Fuses not included in prices.

No. 2077. 30 amps., D. P. main line porcelain cut-out. . . . . each, $ .60
3½ in. long, 2¼ in. wide, 1 7/16 in. high.
Takes fuses Nos. 2001–2010 inclusive.
Standard package, 50.

No. 2078. 60 amps., D. P. main line porcelain cut-out. . . . . each, 1.60
5 13/16 in. long, 3⅜ in. wide, 2 5/32 in. high.
Takes fuses Nos. 2011–2016 inclusive.
Standard package, 50.

No. 2101. 100 amps., D. P. main line porcelain cut-out. . . . . each, 2.80
9¾ in. long, 4¼ in. wide, 2 19/32 in. high.
Takes fuses Nos. 2017–2022 inclusive.
Standard package, 50.

No. 2079. 30 amps., T. P. main line porcelain cut-out. . . . . each, .90
3½ in. long, 4 in. wide, 1 7/16 in. high.
Takes fuses Nos. 2001–2010 inclusive.
Standard package, 50.

No. 2080. 60 amps., T. P. main line porcelain cut-out. . . . . each, 2.35
5 13/16 in. long, 4⅛ in. wide, 2 5/32 in. high.
Takes fuses Nos. 2011–2016 inclusive.
Standard package, 50.

No. 2102. 100 amps., T. P. main line porcelain cut-out. . . . . each, 4.00
9¾ in. long, 6⅛ in. wide, 2 19/32 in. high.
Takes fuses Nos. 2017–2022 inclusive.
Standard package, 25.

No. 2081. 30 amps., D. P. single branch porcelain cut-out. . . . . each, 80
4 29/32 in. long, 2¾ in. wide, 1 7/16 in. high.
Takes fuses Nos. 2001–2010 inclusive.
Standard package, 50.

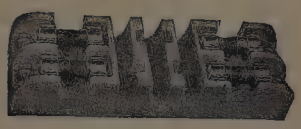
No. 2082. 60 amps., D. P. single branch porcelain cut-out. . . . . each, 2.10
7 7/32 in. long, 3⅜ in. wide, 2 5/32 in. high.
Takes fuses Nos. 2011–2016 inclusive.
Standard package, 50.



No. 2083.



No. 2085.



No. 2087.

FUSES, Enclosed, Bases.

Shawmut Enclosed Fuse Cut-Outs, 250 Volts, N. E. Code (Continued).

No. 2083. 30 amps., T. P. single branch porcelain cut-out ..... each, $1.35
$5\frac{3}{32}$ in. long, 4 in. wide, $1\frac{11}{16}$ in. high.
Takes fuses Nos. 2001–2010 inclusive.
Standard package, 50.

No. 2084. 60 amps., T. P. single branch porcelain cut-out ..... each, 3.00
$8\frac{13}{32}$ in. long, $4\frac{7}{8}$ in. wide, $2\frac{5}{32}$ in. high.
Takes fuses Nos. 2011–2016 inclusive.
Standard package, 50.

No. 2085. 30 amps., D. P. double branch porcelain cut-out ..... each, 1.30
$8\frac{13}{16}$ in. long, $2\frac{3}{4}$ in. wide, $1\frac{11}{16}$ in. high.
Takes fuses Nos. 2001–2010 inclusive.
Standard package, 25.

No. 2086. 60 amps., D. P. double branch porcelain cut-out ..... each, 4.00
$11\frac{9}{16}$ in. long, $3\frac{3}{8}$ in. wide, $2\frac{1}{32}$ in. high.
Takes fuses Nos. 2011–2016 inclusive.
Standard package, 25.

No. 2087. 30 amps., 3 to 2 wire double branch porcelain cut-out ..... each, 1.50
$8\frac{13}{16}$ in. long, $2\frac{3}{4}$ in. wide, $1\frac{11}{16}$ in. high.
Takes fuses Nos. 2001–2010 inclusive.
Standard package, 25.

No. 2088. 60 amps., 3 to 2 wire double branch porcelain cut-out ..... each, 5.00
$12\frac{3}{4}$ in. long, $3\frac{3}{4}$ in. wide, $2\frac{15}{16}$ in. high.
Takes fuses Nos. 2011–2016 inclusive.
Standard package, 25.



Contact Clips Only.

Enclosed Fuse Contact Clips, N. E. Code.
Contact Clips Only.

				Std. Pkg.	Price per 100
No. 2103	0 to 30 amp.	250 volts		100	$2.50
,, 2104	31 ,, 60 ,,	250 ,,		100	6.50
,, 2105	0 ,, 30 ,,	600 ,,		100	5.00
,, 2106	31 ,, 60 ,,	600 ,,		100	7.00
,, 2107	61 ,, 100 ,,	250 and 600 volts		100	14.00
,, 2108	101 ,, 200 ,,	250 ,, 600 ,,		100	32.00





Front Connected Contacts Complete.

Enclosed Fuse, Front Connection Contacts. N. E. Code.
Complete with lugs above 30 amperes.

			Std. Pkg.	Price per 100
No. 2114	30 amp.,	250 volts	100	$12.00
,, 2115	60 ,,	250 ,,	100	20.00
,, 2116	30 ,,	600 ,,	100	14.00
,, 2117	60 ,,	600 ,,	100	24.00
,, 2118	100 ,,	250 and 600 volts	100	48.00
,, 2119	200 ,,	250 ,, 600 ,,	100	100.00
,, 2120	400 ,,	250 ,, 600 ,,	50	300.00
,, 2121	600 ,,	250 ,, 600 ,,	20	500.00



Back Connected Contacts Complete.

Enclosed Fuse, Back Connection Contacts. N. E. Code.
Complete with lugs above 30 amperes.

			Std. Pkg.	Each.
No. 2122	30 amp.,	250 volts	100	$ .44
,, 2123	60 ,,	250 ,,	100	.60
,, 2124	30 ,,	600 ,,	100	.48
,, 2125	60 ,,	600 ,,	100	.65
,, 2126	100 ,,	250 and 600 volts	100	2.00
,, 2127	200 ,,	250 ,, 600 ,,	100	4.00
,, 2128	400 ,,	250 ,, 600 ,,	50	7.00
,, 2129	600 ,,	250 ,, 600 ,,	20	11.00



Composition Lug.



Punched Copper Tubular Lug.

FUSES, Enclosed Bases (Continued).

Enclosed Fuse Lugs.

No.					Std. Pkg.	Per 100.
2109	31– 60 amps.,	250 and	600 volts		100	$8.00
2110	61–100 ,,	250 ,,	600 ,,		100	12.00
2111	101–200 ,,	250 ,,	600 ,,		100	24.00
2112	201–400 ,,	250 ,,	600 ,,		50	50.00
2113	401–600 ,,	250 ,,	600 ,,		20	80.00

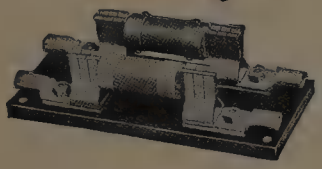
Hill Fuse Blocks, N. E. Code

(see also Switches, knife).





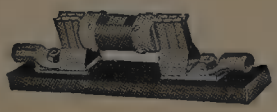




Style FB, 250 Volts.

Plain finish. Fuses not furnished. For polished finish add 30 per cent.

No. 39716	1– 30 amps.,	single pole		each,	$ .50
,, 39717	31– 60 ,,	,,		,,	.96
,, 39718	61–100 ,,	,,		,,	1.30
,, 39719	101–200 ,,	,,		,,	2.40
,, 39720	201–400 ,,	,,		,,	6.40
,, 39721	401–600 ,,	,,		,,	9.20
No. 39722	1– 30 amps.,	double pole		each,	$ .88
,, 39723	31– 60 ,,	,,		,,	1.75
,, 39724	61–100 ,,	,,		,,	2.60
,, 39725	101–200 ,,	,,		,,	4.30
,, 39726	201–400 ,,	,,		,,	11.50
,, 39727	401–600 ,,	,,		,,	16.55
No. 39728	1– 30 amps.,	three pole		each,	$1.30
,, 39729	31– 60 ,,	,,		,,	2.65
,, 39730	61–100 ,,	,,		,,	3.80
,, 39731	101–200 ,,	,,		,,	6.25
,, 39732	201–400 ,,	,,		,,	16.65
,, 39733	401–600 ,,	,,		,,	23.90









Style FB 600 Volts.

No. 39734	1– 30 amps.,	single pole		each,	$ .64
,, 39735	31– 60 ,,	,,		,,	1.15
,, 39736	61–100 ,,	,,		,,	1.45
,, 39737	101–200 ,,	,,		,,	2.60
,, 39738	201–400 ,,	,,		,,	6.60
,, 39739	401–600 ,,	,,		,,	9.60
No. 39740	1– 30 amps.,	double pole		each,	$1.15
,, 39741	31– 60 ,,	,,		,,	2.05
,, 39742	61–100 ,,	,,		,,	2.60
,, 39743	101–200 ,,	,,		,,	4.70
,, 39744	201–400 ,,	,,		,,	11.90
,, 39745	401–600 ,,	,,		,,	17.30
No. 39746	1– 30 amps.,	three pole		each,	$1.65
,, 39747	31– 60 ,,	,,		,,	1.85
,, 39748	61–100 ,,	,,		,,	2.30
,, 39749	101–200 ,,	,,		,,	6.75
,, 39750	201–400 ,,	,,		,,	17.15
,, 39751	401–600 ,,	,,		,,	24.95



Style FBF, 250 Volts.

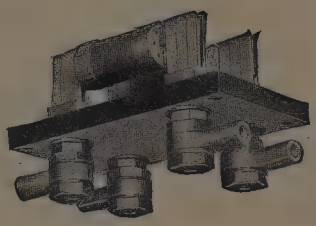
Polished finish. Neither fuses nor bases furnished. Studs packed in pasteboard boxes. Drilling data in each box. When blocks are ordered with switches, straps will be furnished of suitable length in place of terminals. Studs long enough for 2-inch switchboards.



No. 39788	1– 30 amps.,	single pole		each,	$ .64
,, 39789	31– 60 ,,	,,		,,	1.10
,, 39790	61–100 ,,	,,		,,	2.00
,, 39791	101–200 ,,	,,		,,	3.00
,, 39792	201–400 ,,	,,		,,	5.50
,, 39793	401–600 ,,	,,		,,	8.50

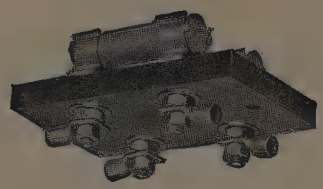
FUSES, Enclosed, Bases.

Hill Fuse Blocks, N. E. Code (Continued).



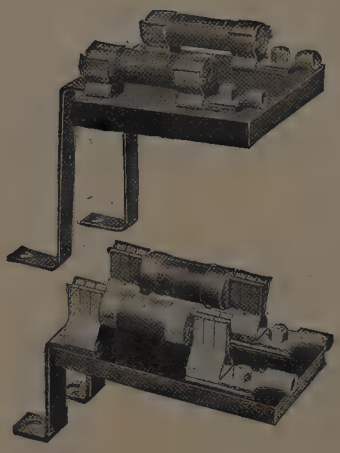
Style FBF, 250 Volts.

No. 39794.....	1– 30	amps.,	double pole	each	$1.30
,, 39795.....	31– 60	,,	,,	,,	2.00
,, 39796.....	61–100	,,	,,	,,	4.00
,, 39797.....101–200		,,	,,	,,	6.00
,, 39798.....201–400		,,	,,	,,	11.00
,, 39799.....401–600		,,	,,	,,	17.00
,, 39800.....	1– 30	amps.,	three pole	,,	1.95
,, 39801.....	31– 60	,,	,,	,,	3.00
,, 39802.....	61–100	,,	,,	,,	6.00
,, 39803.....101–200		,,	,,	,,	9.00
,, 39804.....201–400		,,	,,	,,	16.50
,, 39805.....401–600		,,	,,	,,	25.50



Style FBF, 600 Volts.

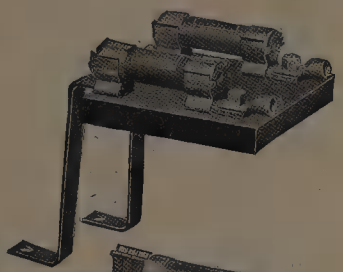
No. 39806.....	1– 30	amps.,	single pole	each,	$ .70
,, 39807.....	31– 60	,,	,,	,,	1.20
,, 39808.....	61–100	,,	,,	,,	2.20
,, 39809.....101–200		,,	,,	,,	3.30
,, 39810.....201–400		,,	,,	,,	6.05
,, 39811.....401–600		,,	,,	,,	9.35
,, 39812.....	1– 30	amps.,	double pole	,,	1.45
,, 39813.....	31– 60	,,	,,	,,	2.20
,, 39814.....	61–100	,,	,,	,,	4.40
,, 39815.....101–200		,,	,,	,,	6.60
,, 39816.....201–400		,,	,,	,,	12.10
,, 39817.....401–600		,,	,,	,,	18.70
,, 39818.....	1– 30	amps.,	three pole	,,	2.15
,, 39819.....	31– 60	,,	,,	,,	3.30
,, 39820.....	61–100	,,	,,	,,	6.60
,, 39821.....101–200		,,	,,	,,	9.90
,, 39822.....201–400		,,	,,	,,	18.15
,, 39823.....401–600		,,	,,	,,	28.05

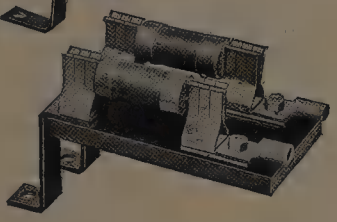


Style FBB, 250 Volts.

Plain finish. Fuses not furnished.

No. 39752.....	1– 30	amps.,	single pole	each,	$ .60
,, 39753.....	31– 60	,,	,,	,,	1.50
,, 39754.....	61–100	,,	,,	,,	2.25
,, 39755.....101–200		,,	,,	,,	3.60
,, 39756.....201–400		,,	,,	,,	7.20
,, 39757.....401–600		,,	,,	,,	10.80
,, 39758.....	1– 30	amps.,	double pole	,,	1.00
,, 39759.....	31– 60	,,	,,	,,	2.50
,, 39760.....	61–100	,,	,,	,,	3.75
,, 39761.....101–200		,,	,,	,,	6.00
,, 39762.....201–400		,,	,,	,,	12.00
,, 39763.....401–600		,,	,,	,,	18.00
,, 39764.....	1– 30	amps.,	three pole	,,	1.50
,, 39765.....	31– 60	,,	,,	,,	3.75
,, 39766.....	61–100	,,	,,	,,	5.65
,, 39767.....101–200		,,	,,	,,	9.00
,, 39768.....201–400		,,	,,	,,	18.00
,, 39769.....401–600		,,	,,	,,	27.00





FUSES, Enclosed, Bases.

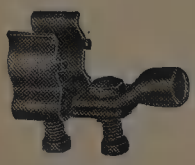
Hill Fuse Blocks, N. E. Code (Continued).

Style FBB, 600 Volts.

No. 39770	1– 30	amps.,	single pole	each,	$ .75
,, 39771	31– 60	,,	,,	,,	1.90
,, 39772	61–100	,,	,,	,,	2.80
,, 39773	101–200	,,	,,	,,	4.50
,, 39774	201–400	,,	,,	,,	9.00
,, 39775	401–600	,,	,,	,,	13.55
No. 39776	1– 30	amps.,	double pole	each,	$1.25
,, 39777	31– 60	,,	,,	,,	3.15
,, 39778	61–100	,,	,,	,,	4.70
,, 39779	101–200	,,	,,	,,	7.40
,, 39780	201–400	,,	,,	,,	15.00
,, 39781	401–600	,,	,,	,,	22.50
No. 39782	1– 30	amps.,	three pole	each,	$1.90
,, 39783	31– 60	,,	,,	,,	4.70
,, 39784	61–100	,,	,,	,,	7.05
,, 39785	101–200	,,	,,	,,	11.25
,, 39786	201–400	,,	,,	,,	22.50
,, 39787	401–600	,,	,,	,,	33.75



No. 9281.

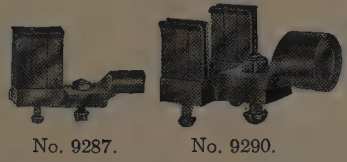


No. 9283.

Hill Fuse Holders.

Front Connections.

No. 9281	30	amps.,	250 volts	each,	$ .16
,, 9282	30	,,	600 ,,	,,	.20
,, 9283	60	,,	250 ,,	,,	.28
,, 9284	60	,,	600 ,,	,,	.32
,, 9285	100	,,	250 and 600 volts	,,	.65
,, 9286	200	,,	250 ,, 600 ,,	,,	1.20
,, 9287	400	,,	250 ,, 600 ,,	,,	3.20
,, 9288	600	,,	250 ,, 600 ,,	,,	5.00
,, 9289	800	,,	250 ,, 600 ,,	,,	6.00
,, 9290	1000	,,	250 ,, 600 ,,	,,	8.00
,, 9291	1200	,,	250 ,, 600 ,,	,,	9.00



No. 9287. No. 9290.

Screws will be sent short so that board must be counterbored, unless otherwise ordered.

Polished finish, 30 per cent extra.



No. 9292. No. 9294. No. 9298.

Back Connections.

No. 9292	30	amps.,	250 volts	each,	$ .32
,, 9293	30	,,	600 ,,	,,	.35
,, 9294	60	,,	250 ,,	,,	.55
,, 9295	60	,,	600 ,,	,,	.60
,, 9296	100	,,	250 and 600 volts	,,	1.50
,, 9297	200	,,	250 ,, 600 ,,	,,	2.25
,, 9298	400	,,	250 ,, 600 ,,	,,	4.15
,, 9299	600	,,	250 ,, 600 ,,	,,	6.40
,, 9300	800	,,	250 ,, 600 ,,	,,	9.00
,, 9301	1000	,,	250 ,, 600 ,,	,,	10.00
,, 9302	1200	,,	250 ,, 600 ,,	,,	12.00



No. 9301.

Studs for 2-in. board, polished finish. Plain, 5 per cent reduction.

GALE'S Commutator Compound (see C).

GALVANIZED Strand (see Rope, wire).

GALVANIZED Wire (see Wire, iron).

GALVANOMETERS (see Ammeters, Bridge, Voltmeters, and Wattmeters).

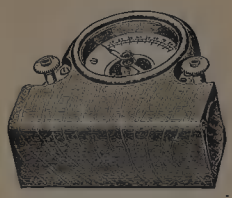


No. 1252.

Pocket Galvanometer.

About the size of an ordinary silver watch, and has a loose-fitting cover. Can be carried conveniently in vest pocket.

No. 1252. Pocket galvanometer.....each, $4.00



Mesco Galvanometer.



Weston Portable Galvanometer Model 14.



Weston Portable Galvanometer Model 15.



No. E-8060.



Car Gate.

GALVANOMETERS (Continued).

Mesco Testing Galvanometer.

This is a pocket galvanometer of extreme sensitiveness, with a small battery contained in the case, and is designed for testing circuits for leaks in place of the ordinary testing bell.

The needle shows a marked deflection through resistance of over 150,000 ohms, making it possible to detect much smaller leaks than a testing bell will show. It may also be used to measure resistances approximately, a table showing scale readings for different resistances being furnished with each instrument.

Size, 3 x 3 x 1⅛ inches. Two 3-foot cords included.

No. 13395. Galvanometer, complete.....each, $8.00
,, 13396. Extra battery for same..... ,, .25

Weston Standard Galvanometer.

These galvanometers are unequalled in sensibility and are unaffected by external fields.

They require no leveling and may be used either horizontally or vertically.

They are supplied in two models, Model 14, with open face, and Model 15, with cover over face and with hand strap.

Model 14. With resistance of 250 ohms (scale deflection 1 mm., with 1 volt through 250,000 ohms).....each, $35.00

Model 15. With resistance of 250 ohms (scale deflection 1 mm., with 1 volt through 250,000 ohms).....each, 35.00
Leather case (for Model 14 only), with handle and shoulder strap, lock and key, each, 3.50

Queen Portable d'Arsonval Galvanometer (see Bridge).

A portable galvanometer, having extreme sensibility, easily shipped without injury, requiring no support and no adjustment preparatory to using, and not affected by external magnet or mechanical disturbances. Suited to either direct deflection measurements or the Wheatstone's Bridge method. Polished mahogany case, 4 x 5½ x 6 inches, with lock and handle.

No. E-8058. Resistance about 500 ohms, sensibility about 1 megohm.....each, $20.00
No. E-8060. Resistance about 600 ohms, sensibility about 1 megohm.....each, 30.00
No. E-8062. Queen Portable d'Arsonval galvanometer, with six chloride of silver cells, each, 40.00

GANG Plates (see Switches).

GAS Attachment (see A).

GAS Elbows (see Stems, fixture).

GAS Keys (see K).

GAS Spars (see Attachments).

GATES, Car.

We are prepared to quote prices on the latest patterns of car gates on receipt of full specifications.

GAUGE, Battery (see Ammeters, battery, and Voltmeters, battery).

GAUGES, Track.



Buda Track Gauge Ends.

Huntington Track Gauge.

No. S-1442. The Huntington standard track gauge is the one most commonly used in railway construction.....per doz., $10.00

No. S-1443. Price with weatherproof insulation, ,, 15.00

,, S-1444. The Buda pattern Huntington track gauge is similar to above, but with extra long sockets (3½ in.), with openings machined to fit pipe exactly and with threaded portion 2½ inches from opening. Ends are milled, making gauge absolutely accurate as to length. Heads will not work loose . . . per doz., 12.00

No. S-1445. Price with weatherproof insulation, ,, 17.00

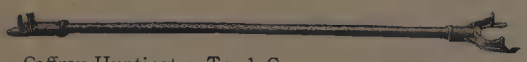


Huntington Track Gauge.

Caffrey-Huntington Track Gauge.

No. S-1446. The Caffrey-Huntington track gauge with guard rail attachment shows the proper distance at which to set guard rail, per doz., $15.00

No. S-1447. Price with weatherproof insulation, ,, 20.00



Caffrey-Huntington Track Gauge.

McManus Gauge and Level.

No. S-1448. A combined gauge and level. The gauge glass has rubber packing which protects it and greatly lessens the likelihood of levels being broken by rough and careless handling . . . net, per doz., $30.00

No. S-1449. McManus insulated gauge without level, net, per doz., 18.00



McManus Track Gauge and Level.

GAUGES, Wire.



Wire Gauge.

B. & S. Wire Gauge.

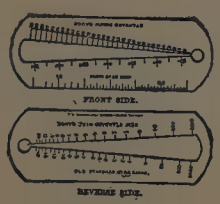
Brown and Sharpe's wire gauge for all sizes of wire, from No. 0 to No. 36 inclusive.

No. S-1441. B. & S. wire gauge.....each, $2.50

B. & S. Screw and Wire Gauge.

Brown and Sharpe's combination screw and wire gauge.

No. H-1442. Combination gauge.....each, $2.50



Combination Screw and Wire Gauge.

GEARS and Pinions.

Bliss Projectile Brand Gears and Pinions.

These gears are made of high-grade open-hearth steel castings in either solid or split patterns. All split patterns are held together by eight steel bolts, the latter fitted with hexagon nuts, lock washers, and cotter pins.

Crown nuts will be supplied when desired at a small additional cost per gear.

Gears and pinions are numbered alike and the number of the pinion required to mesh with a given gear is followed by the letter P.

Where *taper* and *straight bore* pinions can be used with same type gear, the pinion number is followed by the letter P to represent ordinary straight bore and by the letter T to represent taper bore. Give dimensions of bore in ordering gears.

Gears and pinions for all miscellaneous railway motors not listed — Lorain, Walker, Johnson, etc. — are made to order.

The following dimensions should be given when ordering other than standard gears as listed:

State kind of material.
Outside diameter.
Pitch diameter.
Number of teeth.
Width of face.
Diameter of hub.
Total length of hub.
Distance hub projects beyond face on each side.
Diameter of bore.
Width and depth of keyway.
State if gear is solid or split.
State if gear is spoked or webbed.

GEARS and Pinions (Continued).

The following dimensions should be given when ordering other than standard pinions as listed:

State kind of material.
Outside diameter.
Pitch diameter.
Number of teeth.
Width of face.
Dimensions of bore.
Dimensions of counter-bore.
Width and depth of keyway.



Split Gear with Crown Nuts.

Split Motor Gears,

General Electric System.

No.	Type of Motor.	Pitch Diam.	Face.	No. of Teeth.	List Price.
1	T. H. S. R. G.	22⅓ in.	4½ in.	67	$21.00
2	W. P. 30 and 50	22⅓ ,,	4½ ,,	67	21.00
3	,, 30 ,, 50	21⅓ ,,	4½ ,,	64	20.75
4	G. E. 800	21⅓ ,,	4½ ,,	64	20.75
5	,, 800	22⅓ ,,	4½ ,,	67	21.00
7	,, 800	22⅓ ,,	5½ ,,	67	23.50
8	,, 52	20⅔ ,,	4½ ,,	62	20.60
9	,, 52	21⅓ ,,	4½ ,,	64	21.25
10	,, 52	21⅔ ,,	4½ ,,	65	21.50
11	,, 52	22⅓ ,,	4½ ,,	67	21.75
13	,, 58	20⅔ ,,	4½ ,,	62	20.60
14	,, 58	21⅓ ,,	4½ ,,	64	21.25
15	,, 58	21⅔ ,,	4½ ,,	65	21.50
16	,, 58	22⅓ ,,	4½ ,,	67	21.75
17	,, 58	23 ,,	4½ ,,	69	22.50
18	,, 62	22⅓ ,,	4½ ,,	67	21.75
19	,, 1000	20 ,,	4½ ,,	60	20.50
20	,, 1000	20⅔ ,,	4½ ,,	62	20.60
21	,, 1000	21 ,,	4½ ,,	63	20.90
22	,, 1000	21⅓ ,,	4½ ,,	64	21.25
23	,, 1000	21⅔ ,,	4½ ,,	65	21.50
24	,, 1000	22⅓ ,,	4½ ,,	67	21.75
25	,, 1000	23 ,,	4½ ,,	69	22.50
26	,, 67	20 ,,	4½ ,,	60	20.50
27	,, 67	20⅔ ,,	4½ ,,	62	20.60
28	,, 67	21 ,,	4½ ,,	63	20.90
29	,, 67	21⅔ ,,	4½ ,,	65	21.50
30	,, 67	22⅓ ,,	4½ ,,	67	21.75
31	,, 67	23 ,,	4½ ,,	69	22.50
32	,, 57	19 ,,	5 ,,	57	21.75
33	,, 57	17⅓ ,,	5 ,,	52	20.60
34	,, 57	19⅔ ,,	5 ,,	59	22.00
35	,, 57	20⅓ ,,	5 ,,	61	22.15
36	,, 57	21⅓ ,,	5 ,,	64	22.25
37	,, 57	22 ,,	5 ,,	66	22.75
38	,, 57	23 ,,	5 ,,	69	23.50
39	,, 1200	20 ,,	5 ,,	60	21.00
40	,, 55	22 ,,	5¼ ,,	55	
41	,, 55	22⅔ ,,	5¼ ,,	56	
42	,, 64	23⅔ ,,	5 ,,	71	
43	,, 66		5 ,,	71	
44	,, 51	23 in.	5 ,,	69	23.50
45	,, 51	22 ,,	5 ,,	66	22.75
46	,, 51	21⅓ ,,	5 ,,	64	22.25
47	,, 51	20⅓ ,,	5 ,,	61	22.15
48	,, 51	19⅔ ,,	5 ,,	59	22.00
49	,, 51	19 ,,	5 ,,	57	21.75
50	,, 54	22⅓ ,,	4½ ,,	67	21.75
51	,, 63	23 ,,	4½ ,,	69	22.50
52	,, 63	22⅓ ,,	4½ ,,	67	21.75
53	,, 63	21⅔ ,,	4½ ,,	65	21.50
54	,, 64	23⅔ ,,	5 ,,	71	
55	,, 64	20⅓ ,,	5 ,,	61	
56	,, 70	23 ,,	5 ,,	69	23.50

GEARS and Pinions (Continued).

Split Motor Gears, Westinghouse System.

No.	Type of Motor.	Pitch Diam.	Face.	No. of Teeth.	List Price.
501	No. 3	20⅔ in.	5 in.	62	$21.00
502	12 and 12A	19⅓ ,,	5 ,,	58	21.00
503	12 ,, 12A	20⅔ ,,	5 ,,	62	21.00
504	12 ,, 12A	21⅓ ,,	5 ,,	64	21.90
505	12 ,, 12A	22 ,,	5 ,,	66	22 00
506	12 ,, 12A	22⅔ ,,	5 ,,	68	22.50
507	12 ,, 12A	22⅔ ,,	3⅛ ,,	68	19.50
508	36	22⅔ ,,	5 ,,	68	22.50
509	38 and 38B	19⅓ ,,	5 ,,	58	21.00
510	38 ,, 38B	21⅓ ,,	5 ,,	64	21.90
511	38 ,, 38B	22⅔ ,,	5 ,,	68	22.50
512	49	21⅓ ,,	3⅛ ,,	64	19.40
513	49	21⅓ ,,	5 ,,	64	21 90
514	49	22 ,,	5 ,,	66	22.00
515	49	22⅔ ,,	5 ,,	68	22.50
516	50E	20⅘ ,,	5 ,,	52	39.00
517	56	17⅓ ,,	5 ,,	52	20.50
518	56	18⅔ ,,	5 ,,	56	20.90
519	56	19⅓ ,,	5 ,,	58	21.00
520	56	21⅓ ,,	5 ,,	64	21.90
521	56	22 ,,	5 ,,	66	22.00
522	56	22⅔ ,,	5 ,,	68	22.50
523	68	19⅓ ,,	5 ,,	58	21.00
524	68	20⅔ ,,	5 ,,	62	21.00
525	68	21⅓ ,,	5 ,,	64	21.90
526	68	22 ,,	5 ,,	66	22.00
527	68	22⅔ ,,	5 ,,	68	22 50
528	69	22⅔ ,,	5 ,,	68	22.50

Solid Motor Gears, General Electric System.



Solid Gear.

No.	Type.	Pitch Diam. In.	Face.	No. of Teeth.	Wt. Lbs.	No. of Pinion to Mesh.	Price List, Gear Only.
901	T. H. R. S. G.	22⅓	4½	67	175	1P	$21.50
902	W. P. 30 and 50	22⅓	4½	67	175	2P	21.50
904	G. E. 800	22⅓	4½	67	175	6P or 6T	21.50
905	,, 800	21⅓	4½	64	170	4P	21.35
907	,, 52	22⅓	4½	67	180	11P	21.70
908	,, 52	22⅓	4½	67	194	11P	22.50
909	,, 52	22⅓	4½	67	206	11P	23.25
910	,, 52	20⅔	4¾	62	179	8P	21.50
915	,, 58	20⅔	4½	62		13P	21.50
917	,, 58	22⅓	4½	67	180	16P	21.70
918	,, 58	22⅓	4½	67	194	16P	22.50
919	,, 58	22⅓	4½	67	206	16P	23.25
921	,, 62	22⅓	4½	67	180	18P	21.70
922	,, 62	22⅓	4½	67	194	18P	22.50
923	,, 62	22⅓	4½	67	206	18P	23.25
925	,, 1000	20⅔	4½	62	179	20P	21.50
927	,, 1000	22⅓	4½	67	180	24P	21.70
928	,, 1000	22⅓	4½	67	194	24P	22.50
929	,, 1000	22⅓	4½	67	206	24P	23.25
930	,, 1000	23	4½	69	180	25P	22.15
936	,, 67	20⅔	4½	62	179	27P	21.50
938	,, 67	22⅓	4½	67	180	30P	21.70
939	,, 67	22⅓	4½	67	194	30P	22.50
940	,, 67	22⅓	4½	67	206	30P	23.25
941	,, 67	23	4½	69	180	31P	22.15
947	,, 57	21⅓	5	64	210	36P	23.50
949	,, 57	23	5	69	250	38P	26.85
950	,, 57	22	5	66	215	37P	23.75

GEARS and Pinions (Continued).

Solid Motor Gears, Westinghouse System.

No.	Type.	Pitch Diam. In.	Face In.	No. of Teeth.	Wt. Lbs.	No. of Pinion to Mesh.	Price List, Gear Only.
981	W. H. 12 and 12A	22⅔	5	68	210	506P	$23.60
982	W. H 12 and 12A	21⅓	5	64	190	504P	22.25
983	W. H. 36	22⅔	5	68	210	508P	23.60
984	W. H. 38 and 38B	22⅔	5	68	210	511P	23.60
986	W. H. 38 and 38B	21⅓	5	64	190	510P	22.25
987	W. H. 49	22⅔	5	68	210	515P	23.60
988	,, 49	21⅓	5	64	190	513P	22.25
990	,, 56	22⅔	5	68	210	522P	23.60
991	,, 56	21⅓	5	64	190	520P	22.25
995	,, 68	22⅔	5	68	210	527P	23.60
996	,, 68	21⅓	5	64	190	525P	22.25
997	,, 69	22⅔	5	68	220	528P	23.60

Motor Pinions, General Electric System.

No.	Type of Motor.	Pitch Diam. In.	Bore.	Face In.	No. of Teeth.	List Price.
1P	T. H. S. R. G.	4⅔	Straight	4½	14	$3.00
2P	W. P. 30 and 50	4⅔	,,	4½	14	3.00
3P	,, 30 ,, 50	5⅔	,,	4½	17	4.15
4P	G. E. 800	5⅔	,,	4½	17	4.15
5P	,, 800	4⅔	,,	4½	14	3.00
5T	,, 800	4⅔	Taper	4½	14	3.15
6P	,, 800	4⅔	Straight	4½	14	3.00
6T	,, 800	4⅔	Taper	4½	14	3.15
7P	,, 800	4⅔	,,	5½	14	3.60
8P	,, 52	6⅓	,,	4½	19	5.10
9P	,, 52	5⅔	,,	4½	17	4.25
10P	,, 52	5⅓	,,	4½	16	4.00
11P	,, 52	4⅔	,,	4½	14	3.15
13P	,, 58	7⅓	,,	4½	22	7.00
14P	,, 58	6⅔	,,	4½	20	5.50
15P	,, 58	6⅓	,,	4½	19	5.10
16P	,, 58	5⅔	,,	4½	17	4.25
17P	,, 58	5	,,	4½	15	3.50
18P	,, 62	4⅔	,,	4½	14	3.15
18T	,, 62	5⅔	,,	4½	17	4.25
19P	,, 1000	8	,,	4½	24	9.75
20P	,, 1000	7⅓	,,	4½	22	7.00
21P	,, 1000	7	,,	4½	21	6.20
22P	,, 1000	6⅔	,,	4½	20	5.50
23P	,, 1000	6⅓	,,	4½	19	5.10
24P	,, 1000	5⅔	,,	4½	17	4.25
25P	,, 1000	5	,,	4½	15	3.50
26P	,, 67	8	,,	4½	24	9.70
27P	,, 67	7⅓	,,	4½	22	7.00
28P	,, 67	7	,,	4½	21	6.20
29P	,, 67	6⅓	,,	4½	19	5.10
30P	,, 67	5⅔	,,	4½	17	4.25
31P	,, 67	5	,,	4½	15	3.50
32P	,, 57	9⅓	,,	5	28	13.25
33P	,, 57	11	,,	5	33	18.00
34P	,, 57	8⅔	,,	5	26	12.00
35P	,, 57	8	,,	5	24	10.00
36P	,, 57	7	,,	5	21	7.00
37P	,, 57	6⅓	,,	5	19	5.50
38P	,, 57	5⅓	,,	5	16	4.25
39P	,, 1200	5⅔	,,	5	17	4.25
40P	,, 55	7⅕	,,	5¼	18	10.00



Pinion.

(*Continued on next page.*)

GEARS and Pinions.

Motor Pinions,

General Electric System

(Continued).

No.	Type of Motor.	Pitch Diam. In.	Bore.	Face In.	No. of Teeth.	List Price.
41P	G.E. 55	6⅘	Taper	5¼	17	$9.80
42P	,, 64	5⅓	,,	5	16	4.25
43P	,, 66		,,	5		
44P	,, 51	5⅓	,,	5	16	4.25
45P	,, 51	6⅓	,,	5	19	5.50
46P	,, 51	7	,,	5	21	7.00
47P	,, 51	8	,,	5	24	10.00
48P	,, 51	8⅔	,,	5	26	12.00
49P	,, 51	9½	,,	5	28	13.25
50P	,, 54	4⅔	,,	4½	14	3.15
51P	,, 63	5	,,	4½	15	3.50
52P	,, 63	5⅔	,,	4½	17	4.25
53P	,, 63	6⅓	,,	4½	19	5.10
54P	,, 64	5⅓	,,	5	16	4.25
55P	,, 64	8⅔	,,	5	26	12.00
56P	,, 70	5⅔	,,	5	17	4.25



Pinion.

Motor Pinions, Westinghouse System.

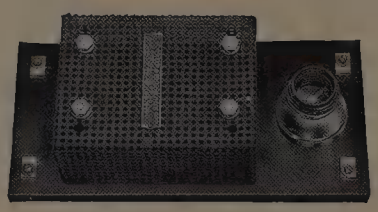
501P	No. 3	6	Taper	5	18	$4.90
502P	12 and 12A	8	,,	5	24	10.00
503P	12 ,, 12A	6⅔	,,	5	20	6.75
504P	12 ,, 12A	6	,,	5	18	4.90
505P	12 ,, 12A	5⅓	,,	5	16	4.35
506P	12 ,, 12A	4⅔	,,	5	14	3.50
507P	12 ,, 12A	4⅔	,,	3⅛	14	2.75
508P	36	4⅔	,,	5	14	3.50
509P	38 and 38B	8	,,	5	24	10.00
510P	38 ,, 38B	6	,,	5	18	4.90
511P	38 ,, 38B	4⅔	,,	5	14	3.50
512P	49	6	,,	3⅛	18	
513P	49	6	,,	5	18	4.90
514P	49	5⅓	,,	5	16	4.35
515P	49	4⅔	,,	5	14	3.50
516P	50E	7⅗	,,	5	19	10.00
517P	56	10	,,	5	30	15.00
518P	56	8⅔	,,	5	26	12.00
519P	56	8	,,	5	24	10.00
520P	56	6	,,	5	18	4.90
521P	56	5⅓	,,	5	16	4.35
522P	56	4⅔	,,	5	14	3.50
523P	68	8	,,	5	24	10.00
524P	68	6⅔	,,	5	20	6.75
525P	68	6	,,	5	18	4.90
526P	68	5⅓	,,	5	16	4.35
527P	68	4⅔	,,	5	14	3.50
528P	69	4⅔	,,	5	14	3.50

GEM Wire Grip (see Grips).

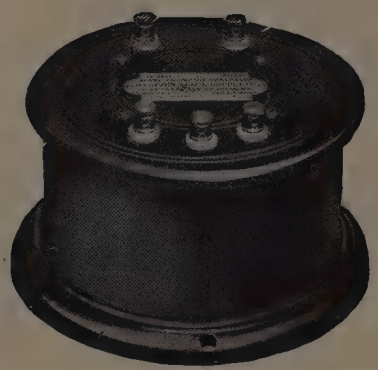
GERMAN Silver Wire (see W).

GENERATORS (see Dynamos, Igniters, Magnetos, and Motors, battery).

GENERATOR Field Rheostats (see Rheostats).



Campbell Low Voltage Transformer.



Adams Secondary Generator.



Rollinson Bell Ringer.



GENERATOR, Secondary.

Campbell Low Voltage Transformer.

For operating electric bells and for other purposes where current of low voltage is required.

For use on secondaries of alternating current lighting circuits up to 250 volts.

Has a pilot lamp that indicates any trouble on the line. Transforms to 10 volts.

No. H-1449. Campbell low voltage transformer, each, $12.00

Adams Secondary Generator.

Designed for ringing bells, buzzers, operating annunciators, burglar alarm systems, gas lighting systems, etc.

It is connected on the secondary side of alternating currents, and as the current consumed is not sufficient to operate an ordinary wattmeter, it is operated at practically no expense.

Fireproof tested on 2,000 volts on short circuit. Has the approval of the Underwriters Association.

It is necessary to readjust the bells when the generator is substituted for batteries, as the adjustment will vary according to the resistance of the circuit, but when once adjusted will require no further attention.

		Primary.		Secondary.			
		Voltage.	Frequency Cycles.	Voltage.	Short Circuit Amps.		List.
No.	1	100–125	60	6–12–18	2.5 = 1.5	= 1	$12.50
,,	1	100–125	133	8–16–24	1.9 = 1.1	= 73	12.50
,,	2	100–125	60	8–16–24	4.2 = 2.5	= 1.5	15.00
,,	2	100–125	133	11–22–33	3.1 = 1.67	= 1.13	15.00
,,	12	100–125	60	8–16–24	10.5 = 10	= 9	18.00
,,	12	100–125	133	11–22–33	9 = 10.1	= 10.25	18.00
,,	19	100–125	60	10–20–30	115 = 85		30.00
,,	20	100–125	60	5–10–15	100 = 61	= 47	40.00

Rollinson Bell Ringer.

Takes the place of batteries for ringing bells, lighting gas, etc. Does not take enough current to operate a meter. Short circuits do not injure it. Operates on 100–120 volts alternating circuits.

No. 1. Residence size, for bell work only, 6 volts, each, $8.00

No. 2. Residence, office, and hotel size, for bells, annunciators, gas lighting, etc., giving 6, 13, or 19 volts from its three secondary terminals. ..... each, 12.00

No. 3. For large systems, heavy door openers, etc., giving 6, 16, or 25 volts on its three secondary terminals ..... each, 15.00

GIMLETS (see also Drills).

No. 700 Bell Hangers' Gimlets.

Double cut gimlets for electricians' use. Made from cast steel; apple wood handles. Sizes $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, and $\frac{3}{8}$ inch.

12-in.	long	per doz., $5.00
15 ,,	,, ...	,, 5.50
18 ,,	,, ...	,, 6.00
24 ,,	,, ...	,, 7.00
30 ,,	,, ...	,, 8.00
36 ,,	,, ...	,, 9.00

GLASS Shades (see Shades).

GLOBE Brush (see B).

GLOBE Nets (see N).

GLOBES, see following headings:

Globes, Arc Lamp, Inner.
,, ,, ,, Outer.
,, Waterproof.
,, Weatherproof.

GLOBES, Arc Lamp Inner.



No. 64.



No. 76.



No. 54.



No. 55.

Arc Lamp Inner Globes.

Heat resisting " Noblac " inner globes are 50 cents per dozen additional to the net prices given below.

Standard packages contain according to style:

Three dozen, cost of packing ..... $ .30 to $ .40
Six dozen, cost of packing ..... .40 ,, .50
Twelve dozen, cost of packing ..... .60

Broken packages (less than standard) 25 cents per dozen, extra.

Lamp Makers' Designation of Globe.	Our Listed Number of Globe.	Outside Diameter of Top.	Outside Diameter of Bottom.	Length.	Price per Dozen, Clear Globes.	Price per Doz. Opalescent, Light Opal, Dense Opal.
Adams-Bagnall Elec. Co., No. 2,	110	2½		6⅛	$1.65	$1.95
,, ,, ,, 4,	121	2½		6¼	1.65	1.95
,, ,, ,, 10,		2½		6½	1.65	1.95
,, ,, ,, 11,		2 13/16	1¼	6½	1.25	1.55
,, ,, ,, 13,	64	2½		6½	1.65	1.95
,, ,, ,, 14,	63	2¾		7½	1.65	1.95
,, ,, ,, 15,	128	2¾	1¼	7	1.25	1.55
Adams & Westlake, "Long"		1¾	1¼	6	1.25	1.55
,, "Short"		1⅜	1⅜	3	1.25	1.55
Albert & J. M. Anderson Mfg. Co.	66	2½	11/16	5 3/16	1.25	1.55
,, ,, "Long,"		2½	11/16	6 3/16	1.25	1.55
Anderson		3 1/16		7¼	1.65	1.95
Ball Elec. Co., "Long Burning"	99	1 13/16	1 3/16	6	1.25	1.55
,, ,,		1⅞	1¼	6	1.25	1.55
Belden-Larwill, No. 1	97	3 7/32		7¼	1.65	1.95
Belden-Lard, No. 11, "B 7½"		3 5/16		7¾	1.65	1.95
Bergman, No. 1	60	2⅜	1⅜	5¾	1.25	1.55
,, ,, 9	56	1 13/16	1 3/32	5¾	1.25	1.55
,, ,, 11	58	1 13/16	1 3/32	6⅜	1.25	1.55
,, ,, 12	57	1 13/16	1 3/32	7	1.25	1.55
Boston Ed. Co., "Continental"	76	2½	11/16	6 13/16	1.25	1.55
,, Elec. Lt. Co., "90254 A"	80	2 3/32	1 3/16	6	1.25	1.55
,, ,, No. 7						
Buchanan		1	7⅛	3¼	1.25	1.55
Chicago Edison, No. 2	126	1 13/16	1 3/32	6	1.25	1.55
,, Arc Lamp						
Commercial		2½	0	6½	1.65	1.95
Dayton Headlight		2	1½	4½	1.25	1.55
,, Fan & Motor, "B-193 & B-194,"		3 5/16		7¾	2.00	2.30
Diehl Mfg. Co., " Style A"	95	1⅞	1⅞	6	1.25	1.55
,, ,, " Style B "	96	2	1⅜	5¾	1.25	1.55
Edison Electric Co.		1⅞	1⅜	6½	1.25	1.55
Eureka	122	1⅜	1 7/16	4	1.25	1.55
Falcon	56	1 13/16	1 3/32	5¾	1.25	1.55
Ft. Wayne Elec. Works, "Long"		1⅞	1 3/16	6½	1.25	1.55
,, ,, ,, "Short"		1⅞	1 3/16	5⅞	1.25	1.55
,, ,, ,, No. 6846,		2¾	0	7½	1.65	1.95
G. E., A-1						
G. E. Co., No. 2	72	2	1 3/16	5⅛	1.25	1.55
,, ,, ,, 3	55	2	1 3/16	6½	1.25	1.55
,, ,, Spec. No. 3 B.G.E. Co.,	129	2	1 3/16	6½	1.25	1.55
,, ,, "Old No. 3"		2	1 3/16	6½	1.25	1.55
,, ,, No. 4	73	2	1 3/16	4	1.25	1.55
,, ,, ,, 5	54	1⅞	1 3/16	5⅞	1.25	1.55
,, ,, ,, 7	114	2	1 3/16	7½	1.25	1.55
,, ,, ,, 8	52	1⅞	1¼	6⅛	1.25	1.55
,, ,, ,, 14	136	2	1 3/16	3 15/16 to 4 1/16	1.25	1.55
,, ,, ,, 16		2 3/16	0	5¼	1.65	1.95
,, ,, ,, 23		2⅜	1 3/16	6½	1.25	1.55
,, ,, ,, 24	134	15/16 to 1 1/16	15/16 to 1 1/16	3⅜	1.25	1.55

(*Continued on next page.*)

GLOBES, Arc Lamp Inner.

Arc Lamp Inner Globes (Continued).



No. 92.



No. 68.



No. 52.

Lamp Makers' Designation of Globe.	Our Listed Number of Globe.	Outside Diameter of Top.	Outside Diameter of Bottom.	Length.	Price per Dozen, Clear Globes.	Price per Dozen Opalescent, Light Opal, Dense Opal.
G. E. Co., No. 25		$2\frac{3}{8}$	$1\frac{3}{16}$	$5\frac{7}{8}$	$1.25	$1.55
,, ,, ,, 26	130	$2\frac{7}{8}$	0	$5\frac{1}{2}$	1.65	1.95
,, ,, ,, 36	112	$3\frac{1}{4}$	0	$7\frac{3}{8}$	1.65	1.95
,, ,, ,, 39	124	$3\frac{3}{8}$	0	9	1.65	1.95
,, ,, ,, 46	63	$2\frac{3}{4}$	0	$7\frac{1}{2}$	1.65	1.95
,, ,, ,, 49	116	$2\frac{3}{4}$	0	$8\frac{15}{16}$	1.65	1.95
,, ,, ,, 66 for dim. arc lamp,	132	2		$3\frac{1}{8}$	1.25	1.55
,, ,, ,, "K 105401"		$3\frac{1}{4}$	0	$7\frac{3}{8}$	1.65	1.95
,, ,, ,, Double "Carbon"	108	$3\frac{13}{16}$	0	$7\frac{7}{8}$	2.00	2.30
,, ,, ,, "Headlight"	107	$\frac{53}{100}$	$1\frac{3}{16}$	4	1.25	1.55
,, ,, ,, "K 107343"						
G. I. Arc Light Co., No. 1	60	$2\frac{3}{8}$	$1\frac{3}{8}$	$5\frac{3}{4}$	1.25	1.55
,, ,, ,, 3	82	$1\frac{7}{8}$	$1\frac{1}{4}$	$5\frac{1}{2}$	1.25	1.55
,, ,, ,, 7		$1\frac{1}{2}$	$1\frac{1}{4}$	5	1.25	1.55
,, ,, ,, 9	56	$1\frac{13}{16}$	$1\frac{13}{32}$	$5\frac{3}{4}$	1.25	1.55
,, ,, ,, 10		$1\frac{5}{8}$	$1\frac{1}{8}$	$5\frac{3}{4}$	1.25	1.55
,, ,, ,, 11	58	$1\frac{13}{16}$	$1\frac{13}{32}$	$6\frac{3}{8}$	1.25	1.55
,, ,, ,, 12	57	$1\frac{13}{16}$	$1\frac{13}{32}$	7	1.25	1.55
,, ,, ,, 12 (N.T.),	111	$1\frac{13}{16}$	$1\frac{13}{32}$	$7\frac{1}{8}$	1.25	1.55
,, ,, ,, 14	123	$2\frac{3}{4}$	0	$7\frac{9}{16}$	1.65	1.95
,, ,, (Imp. No. 12),		$1\frac{5}{8}$	$1\frac{1}{4}$	7	1.25	1.55
,, ,, No. 2850		$1\frac{5}{8}$	$1\frac{1}{4}$	6	1.25	1.55
,, ,, ,, 15	112	$3\frac{1}{4}$	0	$7\frac{3}{8}$	1.65	1.95
,, ,, ,, 16	133	$1\frac{1}{16}$	$1\frac{9}{32}$	$7\frac{1}{16}$ to $7\frac{1}{8}$	1.25	1.55
Gilbert	52	$1\frac{7}{8}$	$1\frac{1}{4}$	$6\frac{1}{8}$	1.25	1.55
Headlight Imperial No. 4 (C. H.),	135	$1\frac{1}{8}$	$\frac{7}{8}$	$3\frac{1}{4}$	1.25	1.55
Helios-Upton Co., No. 2	69	$2\frac{19}{32}$	$1\frac{5}{32}$	$5\frac{1}{2}$	1.25	1.55
,, ,, 3	85	$2\frac{5}{8}$	$1\frac{5}{8}$	$6\frac{3}{4}$	1.25	1.55
,, ,, 4	86	$2\frac{5}{8}$	$1\frac{1}{8}$	8	1.65	1.95
,, ,, 5		$3\frac{1}{16}$	0	$4\frac{3}{4}$	1.65	1.95
,, ,, 6	87	$3\frac{1}{4}$	0	$8\frac{7}{8}$	2.00	2.30
,, ,, 7		$3\frac{1}{4}$	0	8	1.65	1.95
,, ,, 8	90	$3\frac{1}{4}$	0	$8\frac{7}{8}$	1.65	1.95
,, ,, 9	91	3	0	$7\frac{3}{4}$	1.65	1.95
,, ,, 10	92	$3\frac{1}{16}$	0	8	1.65	1.95
,, ,, 11		$3\frac{1}{16}$	0	$7\frac{7}{16}$	1.65	1.95
,, ,, 12		$4\frac{1}{4}$	0	$4\frac{3}{4}$	2.00	2.30
,, ,, 15		$4\frac{1}{2}$	0	$3\frac{1}{2}$	1.65	1.95
,, Style "M"	70	$1\frac{3}{4}$	$1\frac{5}{16}$	$5\frac{3}{4}$	1.25	1.55
,, ,, "P"	68	$1\frac{3}{4}$	$1\frac{1}{4}$	$5\frac{13}{16}$	1.25	1.55
,, ,, "P2"	102	$1\frac{3}{4}$	$1\frac{1}{4}$	$5\frac{3}{4}$	1.25	1.55
,, ,, "R"	88	$2\frac{1}{2}$	$1\frac{1}{4}$	7	1.25	1.55
,, ,, "T"	71	$1\frac{3}{4}$	$1\frac{1}{4}$	7	1.25	1.55
,, ,, $6\frac{1}{2}$				$6\frac{1}{2}$	1.25	1.55
Imperial, No. 8	94	$3\frac{1}{8}$	0	$8\frac{1}{8}$	1.65	1.95
,, Style "A"		2	$1\frac{3}{16}$	$5\frac{7}{8}$	1.25	1.55
,, ,, "B"		2	$1\frac{3}{16}$	$6\frac{1}{2}$	1.25	1.55
International, No. 1		$1\frac{7}{16}$	$1\frac{1}{8}$	5	1.25	1.55
,, ,, 2		$2\frac{9}{16}$	$1\frac{1}{16}$	$5\frac{1}{4}$	1.25	1.55
Iron City Engineering Co.		$1\frac{7}{8}$	$1\frac{3}{8}$	6	1.25	1.55
,, ,,		$2\frac{1}{2}$	$1\frac{3}{8}$	$6\frac{5}{8}$	1.25	1.55
Jandus Electric Co., No. 1	60	$2\frac{3}{8}$	$1\frac{3}{8}$	$5\frac{3}{4}$	1.25	1.55
,, ,, ,, 6	81	$2\frac{13}{16}$	$1\frac{1}{4}$	$6\frac{1}{2}$	1.25	1.55
,, ,, ,, 8	52	$1\frac{7}{8}$	$1\frac{1}{4}$	$6\frac{1}{8}$	1.25	1.55
,, ,, ,, 10	53	$2\frac{7}{8}$	$1\frac{1}{4}$	$6\frac{1}{8}$	1.25	1.55
,, ,, ,, 11	65	$3\frac{1}{4}$	0	$7\frac{9}{16}$	1.65	1.95
,, ,, ,, 12	98	$2\frac{7}{8}$	0	6	1.65	1.95
,, ,, ,, 13		$3\frac{1}{4}$	0	$8\frac{1}{8}$	1.65	1.95
,, ,, ,, 15	100	$3\frac{5}{8}$	0	$7\frac{1}{4}$	1.65	1.95

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GLOBES, Arc Lamp Inner.

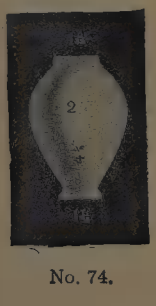
Arc Lamp Inner Globes (Continued).



No. 75.



No. 52.



No. 74.

Lamp Makers' Designation of Globe.	Our Listed Number of Globe.	Outside Diameter of Top.	Outside Diameter of Bottom.	Length.	Price per Dozen, Clear Globes.	Price per Doz. Opalescent, Light Opal, Dense Opal.
Jandus No. 17		3 5/8	0	8 3/4	1.65	1.95
Jandus Electric Co. (sp'c'l shape)	75	1 15/16	1 3/16	6 1/8	1.25	1.55
,, (Creaghead)		1 15/16	1 1/4	6 1/8	1.25	1.55
Keystone Elec. & Mfg. Co., "Climax 200"	115	2 5/16	0	5	1.65	1.95
Keystone Elec. Co., Lamp No. 4	131	3 5/8	...	7 1/4	1.65	1.95
Kraushaar Lamp & Reflector Co.,		2	1 1/8	5 1/4	1.25	1.55
Lea Elec. Mfg. Co., " Miniature "	83	2 5/8	0	5 3/8	1.65	1.95
,, " Standard "	84	3 3/16	0	6 1/4	1.65	1.95
Lea		3 1/8	0	8 3/8	1.65	1.95
,,		3 1/8	0	7 1/2	1.65	1.95
Manhattan, No. 1	60	2 5/8	1 3/8	5 3/4	1.25	1.55
,, ,, 2	63	2 3/4	0	7 1/2	1.65	1.95
,, ,, 8	52	1 7/8	1 1/4	6 1/8	1.25	1.55
,, ,, 9	56	1 13/16	1 13/32	5 1/4	1.25	1.55
,, ,, 11	58	1 13/16	1 13/32	6 3/8	1.25	1.55
,, ,, 12	59	2 5/8	0	7 1/2	1.65	1.95
,, ,, 12 (new type)	104	2 11/16	0	7 1/2	1.65	1.95
,, ,, 13	61	2 5/8	1 3/16	6 1/2	1.25	1.55
,, ,, 15		2 5/8	1 3/16	6 1/2	1.25	1.55
Mark-Ayer		1 3/4	1 3/8	5 3/4	1.25	1.55
Massillon, The	81	2 13/16	1 1/4	6 1/2	1.25	1.55
Morsher	119	1 1/4	1 3/16	5 1/16	1.25	1.55
Narragansett Electric Light Co	109	4 11/32	0	8 3/8	2.00	2.30
Norwood, " 6½ "						
John S. Nowotny		1 15/16	1 3/8	6 1/4	1.25	1.55
,, " 7¼ "						
Perkins, 110 volt	67	2 1/4	1 7/32	5 1/2	1.25	1.55
,, 220 ,,		2 1/4	1 1/8	6 1/2	1.25	1.55
Perkins Elec. Switch Mfg. Co., " Long "		2 1/4	1 1/4	6 3/8	1.25	1.55
,, ,, ,, ,, ,, " Short "		2 1/4	1 1/8	5 7/16	1.25	1.55
Pioneer	56	1 13/16	1 13/32	5 3/4	1.25	1.55
Pittsburg Pioneer	93	1 13/16	1 1/4	6	1.25	1.55
Paxton						
Pioneer		1 3/4	1 1/4	5 7/8	1.25	1.55
,,		1 3/4	1 3/8	6 1/8	1.25	1.55
Pittsburg Electric & Machine Co		3	0	7	1.65	1.95
Philadelphia	105	2	1 3/32	5 5/16	1.25	1.55
Puritan		2	1 3/16	5 1/16	1.25	1.55
Siemens-Halske, No. 1	89	1 3/4	1 11/16	6	1.25	1.55
Safford		2	1 3/16	4	1.25	1.55
Standard Interior Arc Light Co	106	1 61/64	1 1/64	5	1.25	1.55
Sterling, No. 6	52	1 7/8	1 1/4	6 1/8	1.25	1.55
Syracuse Arc Lamp Co		1 7/8	1 1/4	6 1/8	1.25	1.55
A. E. Tenney Manufacturing Co		2	1 3/16	6 1/2	1.25	1.55
C. J. Toerring Company, No. 1	77	2 5/8	0	6 3/4	1.65	1.95
,, ,, ,, 2	125	2 5/8	0	8	1.65	1.95
,, ,, ,, 3	78	3 1/4	0	8 1/8	2.00	2.30
,, ,, ,, 4	120	3 1/4	0	8 1/2	2.00	2.30
Toerring Mogul		7 3/4	0	10	4.00	4.50
U. S. Headlight Company, " Mosher "	74	1 7/32	1 7/32	4 1/8	1.25	1.55
Walker		1 7/8	1 1/4	5 3/4	1.25	1.55
Warner Arc Lamp		4 1/8	0	7	2.00	2.30
Waterhouse-Gambel	67	2 1/4	1 7/32	5 1/2	1.25	1.55
Western Electric Co.	51	1 7/8	1 3/16	6 1/8	1.25	1.55
,, ,, ,, Style " H "		1 7/8	1 3/16	6 1/8	1.25	1.55
,, ,, ,, ,, " L "	50	3 3/4	0	7 7/8	1.65	1.95
,, ,, ,, ,, " P "	117	3 3/4	0	7 3/4	2.00	2.30
,, ,, ,, ,, " Q "	118	3 3/4	0	8 3/4	2.00	2.30
,, ,, ,, ,, " R "	127	3 3/4	0	8 1/8	2.00	2.30
West. Elec. & Mfg. Co., No. 7010	62	1 15/16	1 1/8	7 3/8	1.25	1.55
Short-Westinghouse		1 15/16	1 3/16	5	1.25	1.55

(*Continued on next page.*)

GLOBES, Arc Lamp Inner.

Arc Lamp Inner Globes (Continued).



Spherical Type of Globes.

Lamp Makers' Designation of Globe.	Our Listed Number of Globe.	Outside Diameter of Top.	Outside Diameter of Bottom.	Length.	Price per Dozen, Clear Globes.	Price per Dozen, Opalescent, Light Opal, Dense Opal.
West. Elec. & Mfg. Co., No. 11368,	79	$2\frac{3}{8}$	$1\frac{3}{16}$	6	$1.25	$1.55
Westinghouse, No. 11457		$2\frac{3}{8}$	$1\frac{3}{16}$	$7\frac{3}{8}$	1.25	1.55
,, (G 11-2-Walker)						
,, Globe, No. 30061		$2\frac{3}{4}$		$8\frac{1}{4}$	1.65	1.95
,, ,, ,, 35287		$2\frac{15}{16}$		9	1.65	1.95
,, ,, ,, 35290		$2\frac{15}{16}$		$7\frac{1}{2}$	1.65	1.95
Wood	113	2	$1\frac{3}{16}$	$6\frac{1}{2}$	1.25	1.55
Zeco	103	$1\frac{7}{8}$	$1\frac{1}{4}$	$6\frac{3}{4}$	1.25	1.55
Ziegler Electric Co.		$1\frac{7}{8}$	$1\frac{1}{4}$	$6\frac{3}{4}$	1.25	1.55



Pear-shaped Globes.

GLOBES, Arc Lamp Outer.

Arc Lamp Globes and Shades.

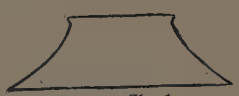
Numbers given are manufacturers' numbers and are for clear glass globes, except those numbers representing shades, which are opal porcelain or metal as stated. In ordering give make of lamp, number of globe and whether clear alabaster or opal globes are wanted. Prices of all styles on application. Sizes given are in inches.



Pointed Globe.

Adams-Bagnall.

No.	Diam.	Height.	Top.	Bottom.	Shape.
50. Globe	13	$11\frac{3}{4}$	8 (hole)	$4\frac{7}{8}$ (lip)	Spherical
51. ,,	12	$11\frac{3}{4}$	8 ,,	$4\frac{7}{8}$,,	Pear
52. ,,	13	$11\frac{7}{16}$	8 ,,	$1\frac{1}{2}$ (hole)	Spherical
57. ,,	13	$12\frac{9}{16}$	$8\frac{1}{8}$ (lip)	closed	,,
58. ,, (marine)	$7\frac{3}{4}$	$11\frac{5}{8}$	$7\frac{3}{4}$	$1\frac{1}{2}$ (hole)	U-Shaped
60. ,,	13	$11\frac{1}{8}$	$8\frac{1}{8}$ (lip)	$8\frac{1}{2}$,,	Spherical
6. Porcelain reflec.		$5\frac{1}{2}$	$8\frac{1}{8}$,,	17	Convex
8. ,, ,,		$2\frac{5}{8}$	$8\frac{1}{8}$,,	18	,,



Convex Shade.

American Arc Lamp Company, "Lea."

	Diam.	Height.	Top.	Bottom.	Shape.
669. Globe	12	$12\frac{1}{2}$	6 (lip)	closed	Spherical
525. ,,	10	$9\frac{1}{2}$	6 ,,	,,	,,
745. ,, {old style / miniature}	8	8	$4\frac{5}{8}$,,	,,	,,
3045. ,, {new style / miniature}	8	$7\frac{3}{4}$	$4\frac{15}{16}$,,	,,	,,



Concave Shade.

Anderson's "Monarch."

1209. Globe	10	$9\frac{11}{16}$	$5\frac{13}{16}$ (lip)	closed	Spherical

Boston Edison "Gilbert."

207. Globe	12	12	$5\frac{3}{4}$	2	Spherical

Fort Wayne "Wood."

	Diam.	Height.	Top.	Bottom.	Shape.
83200. Globe	12	$11\frac{5}{8}$	$8\frac{1}{4}$ (lip)	$4\frac{1}{4}$ (lip)	Spherical
83203. ,,	11	$13\frac{3}{4}$	$6\frac{1}{8}$,,	closed	,,
83211. ,,	13	$12\frac{1}{2}$	$7\frac{3}{8}$,,	,,	,,
83215. ,,	13	17	$7\frac{3}{8}$,,	pointed	Pear
83218. ,,	12	12	8 (hole)	$4\frac{3}{4}$ (lip)	Spherical
83221. ,,	12	15	8 ,,	$4\frac{3}{8}$,,	Pear
83224. ,,	13	$13\frac{1}{2}$	7 ,,	2 ,,	Elongated
87477. ,,	$13\frac{3}{8}$	14	8 ,,	$4\frac{1}{4}$,,	,,
87478. ,,	$11\frac{3}{4}$	$11\frac{5}{16}$	$8\frac{3}{8}$,,	$4\frac{1}{4}$,,	Spherical
87655. ,,	13	$12\frac{5}{16}$	$8\frac{1}{8}$ (lip)	$1\frac{1}{2}$ (hole)	,,
83235. Porce. reflector,		3	$6\frac{1}{8}$	16	Concave
83236. Metal ,, (porce.)		3	$6\frac{7}{16}$	21 ,,	"S" Curve
83237. ,, ,, (enam.)		$3\frac{1}{2}$	$7\frac{3}{8}$	18	Concave



U-Shape Globe.

Prices on application.

GLOBES, Arc Lamp Outer.

Arc Lamp Outer Globes (Continued).

	Diam.	Height.	Top.	Bottom.	Shape.
Fort Wayne Wood.					
No. 83243. Porcelain reflector		3	8 1/16	21 1/16	Straight
,, 83474. Metal concentric dif.		2 5/8	5 3/4	39	Corrugated
,, 83475. Metal refl. (enam.)		4 9/16	6 7/16	22	Straight
,, 83497. Porcelain reflector		6	6 3/16	15 1/2	Convex
,, 83498. ,, ,,		3 1/2	7 3/8	17 1/2	Concave
,, 86822. Porcelain lower shade		8 1/2	2	18	"S" Curve
General Electric.					
No. 1. Globe	12	11 1/2	6 (hole)	2 (lip)	Pear
,, 4. ,, (marine)	6 1/2	11 1/2	6 1/2 ,,	2 ,,	U-Shape
,, 5. ,,	11 1/2	11 1/2	6 (lip)	closed	Spherical
,, 8. ,,	13 9/16	13 1/16	6 1/8 ,,	8 1/8 (lip)	,,
,, 9. ,,	13 1/16	13 1/16	6 1/8 ,,	closed	,,
,, 10. ,,	12 5/8	12 5/8	6 (hole)	2 1/8 (lip)	Pear
,, 11. ,,	13 1/16	12 9/16	8 1/16 (lip)	closed	Spherical
,, 12. ,,	14	13 1/16	8 1/8 ,,	8 1/8 (lip)	,,
,, 13261. Flat opal reflector		3 1/2	6 1/4	17	Straight
,, 2860. Deep ,, ,,		6	6 1/4	15 1/2	Convex
,, 13264. Metal reflector		4 1/2	6 1/2	21 1/2	,,
,, 2856. ,, ,,		2 1/2	6 3/4	21 1/2	,,
,, 23979. ,, ,,		3 1/16	7	21 1/2	,,
,, 2854. ,, ,,			6 3/4	36	Straight
,, 2855. Opal inv. reflector		8 3/4	18	2 1/2	"S" Curve
,, 2858. Mirror reflector		6	6 1/4	21 1/2	Straight
,, 2859. ,, ,,		8	5 7/8	20 1/2	,,
,, 27571. Concentric diffuser		3	39	5 3/4	Corrugated
,, 37568. Inv. con. diffuser		5 7/8	5 3/4	39	
Tear Drop globe	12 3/4	12	13 1/4 (lip)	closed	Pointed
Helios Mfg. Co.					
B-1. Globe	12	12	6 (lip)	closed	Spherical
A-1. ,, (old style)	8	10	4 5/8 ,,	,,	,,
Continental (old style)	10	10	5 3/4 ,,	2 1/2 (lip)	,,
,, (new style)	12	12	6 ,,	closed	,,
No. 23. Flat porcelain reflector		3 5/8	6 ,,	18	Straight
Jandus Electric.					
No. 16. Globe	12	12	6 (lip)	closed	Spherical
,, 18. ,,	12	12	6 ,,	open	,,
,, 14. ,, (marine)	5	12	5 1/4 ,,	closed	Cylindrical
,, K6. Steel enameled shade			6 ,,	20	Fluted
,, 10. Porcelain shade		4	6 ,,	16	Convex bell
,, 11. ,, ,,		3	6 ,,	16	Concave bell
Manhattan.					
No. 300. Globe	13	12 3/8	5 1/16 (hole)	6 (lip)	Pear-shaped
,, 301. ,,	11	11	5 5/8	closed	Spherical
,, 3. Porcelain reflector		3 1/2	4 3/4	18	Concave
,, 5. ,, ,,		3 3/4	4 3/4	18	,,
,, 1083. Metal reflector		2	6	20	Flat
Shelby Elec. Co. Standard and Miniature.					
No. 525. Globe (Std.)	10	10	6	closed	Spherical
,, 669. ,, ,,	12	12	6	,,	,,
,, 2016. Porcelain reflector			6	15	Deep bell
,, 2017. ,, ,,			6	15	Shallow bell
,, 745. Globe (Min.)	8	8	4 1/2	12	Spherical
,, 2014. Porcelain reflector			4 1/2	12	Deep bell
,, 2015. ,, ,,			4 1/2	12	Shallow bell
Stanley G.-I.					
No. 4. Globe	12	14	8 (hole)	2 1/2 (lip)	Pear
,, 43. ,,	12	12	6 (lip)	closed	Spherical
,, 44. ,,	13 1/2	13	6 ,,	8 (lip)	,,
,, 45. ,,	8	7 1/2	6 ,,	closed	,,
Toerring.					
Globe	12	12	6	closed	Spherical
Western Electric Company.					
AA. Globe	12 5/8	11 1/4	7 (lip)	7 (hole)	Spherical
S. ,,	12	12	7 ,,	closed	,,
T. ,, (marine)	7	9 5/8	7 3/4 ,,	,,	U-shape
M. Porcelain reflector		3 5/8	7 ,,	18	Concave
No. 1. Metal refl., painted white inside,				18	Special
,, 2. ,, ,, enameled both sides,				18	,,

Prices on application.



Style A.



Style B. Style B with Guard.



Style C.



E-942.



E-942A.



E-942½.

GLOBES, Arc Lamp Outer.

Arc Lamp Outer Globes (Continued).

Westinghouse.

No.		Diam.	Height.	Top.	Bottom.	Shape.
27034.	Globe	13¼	12 13/16	9¼ (lip)	closed	Spherical
38919.	,,	13¼	12½	9¼ ,,	8⅛ (lip)	,,
37962.	,,	12¼	12½	6 ,,	closed	,,
29979.	Porcelain reflector		4½	9¼ ,,	20	Concave
38909.	,, ,,		4½	6 ,,	20	,,
46530.	Metal reflector		4½	6 ,,	20	,,
46531.	Metal diffuser		3½	5¾ (hole)	36	Corrugated
46532.	,, ,,		3½	5¾	36	Plain
46535.	Bobeche, porcelain		8½	17⅜	2 (lip)	,,
46534A.	,, ,,		8½	17⅜	2 ,,	Scalloped

Prices on application.

GLOBES, Waterproof.

Newgard Waterproof Globes.

Made entirely of non-absorbing and non-corrosive material, for use where lamps are exposed or are installed in damp places.

Combines a lamp receptacle or socket with a waterproof globe. Furnished regularly in Edison base; T.-H. base to order. Globe, length, 6 inches, opening, 2¾ inches.

Style A.

No. 4337. Edison base, with 8-inch conducting wires for pendant work ..... per doz., $15.00

Style B.

No. 4347. Edison base, with 8-inch conducting wires with pipe connection for use with ½-inch iron pipe ..... per doz., $18.00

Style C.

No. 4349. Edison base, with 8-inch conducting wires with iron flange for use in ceiling or wall work ..... per doz., $18.00

Parts of Above.

No. 19041.	Clear glass globes only	per doz.,	$3.30
,, 19042.	Colored ,, ,, ,, (red, green, blue, amber)	,,	12.00
,, 19043.	Porcelain caps only	,,	5.50
,, 19044.	Style B iron fitting	,,	5.00
,, 19045.	,, C ,, ,,	,,	5.00
,, 4351.	Wire guards	per gr.,	40.00

Extra length of wire furnished to order.

GLOBES, Weatherproof.

Gleason Weatherproof Globes.

These globes have brass caps threaded to take the globe and supplied with nipple for socket.

E-942.	Complete	each,	$ .75
	Globes only	,,	.40
	Caps only, ⅜ x ⅛	,,	.43
	,, ,, ⅜ x ½	,,	.55

Length, 7 in. Diameter, 6 in., 3½ in. inside of neck.

E-942A.	Complete	each,	$ .75
	Globe only	,,	.40
	Cap only, ⅜ x ⅛	,,	.43
	,, ,, ⅜ x ½	,,	.55

Length, 8 in. Diameter, 3½ in., 2¾ in. inside of neck.

E-942B.	Complete (same shape as E-942A)	each,	$1.25
	Globe only	,,	.75
	Cap only, ⅜ x ⅛	,,	.55
	,, ,, ⅜ x ½	,,	.68

Length, 9 in. Diameter, 4 in., 3¾ in. inside of neck.

E-942½.	Complete	each,	$1.88
	Globe only	,,	.88
	Cap only, ⅜ x ⅛	,,	1.00
	,, ,, ⅜ x ½	,,	1.13

Length, 8½ in. Diameter, 6 in., 3½ in. inside of neck.

GLOVES.



Rubber Glove with Gauntlet.

Linemen's Rubber Gloves.

Black rubber gloves especially made for use by electric linemen, and furnished regularly in sizes Nos. 13, 14, and 15.

No. S-1450. Short, heavy palm, without gauntlet..per doz. prs., $30.00
„ S-1451. Half long, heavy palm, with 4-inch gauntlet, per doz. prs., 36 00

For size No. 16, add to list..... 3.00
„ „ „ 17 „ „ „ 6.00

Size No. 13 fits No. 10 hand.
„ „ 14 „ „ 11 „
„ „ 15 „ „ 12 „

GLUE Pots (see Pots).

GONGS, see following headings:
Gongs, Electro-Mechanical.
„ Foot and Root.

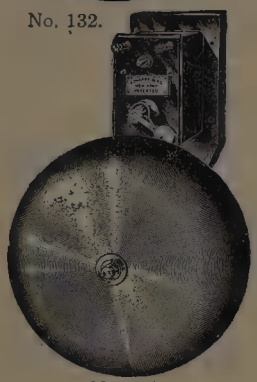
GONGS, Electro-Mechanical (see also Bells).



No. 139.



No. 132.



No. 133.



No. 140.

Electro-Mechanical Gongs.

Edwards No. 139.

Can be used in exposed places. Gong, hammer, and binding-posts are nickel plated, box japanned and waterproof.

Can be furnished single stroke or continuous ringing on open or closed circuit; 200 blows to each winding.

3-inch, 10 ohms resistance.....each, $11.50
4 „ 10 „ „ ..... „ 12.80
5 „ 10 „ „ ..... „ 19.40
6 „ 10 „ „ ..... „ 20.00

Special resistances to order.

Edwards No. 132.

For use indoors. Gong and front are nickel plated. Entire mechanism attached to front plate and encased in polished hard wood box.

Can be arranged to operate as a single stroke or constant ringing gong, or to ring continuously until run down after circuit is closed or broken, on open or closed circuit. Two hundred blows to each winding.

5-inch, 10 ohms resistance.....each, $19.40
6 „ 10 „ „ ..... „ 20.00
8 „ 10 „ „ ..... „ 22.50
9 „ 10 „ „ ..... „ 25.00

Edwards No. 133.

Is entirely encased in iron and is weatherproof.

The mechanism is very powerful and gives 375 blows to each winding.

Can be arranged to operate as a single stroke or constant ringing gong, or to ring continuously until run down after circuit is closed or broken, on open or closed circuit.

8-inch, 4 ohms resistance.....each, $30.00
10 „ 4 „ „ ..... „ 31.00
12 „ 4 „ „ ..... „ 35.00
14 „ 4 „ „ ..... „ 40.00
15 „ 4 „ „ ..... „ 42.50
16 „ 4 „ „ ..... „ 45.00
18 „ 4 „ „ ..... „ 55.00

Circuit closing attachment to close auxiliary circuit and attract attention when gong needs rewinding.....extra, 3.00

Special resistances to order.

Edwards No. 140.

For indoor use. Finished in polished wood. Gives 375 blows to each winding. Can be arranged as a single-stroke or constant-ringing gong, or to ring continuously until run down after circuit is closed or broken, on open or closed circuit.

8-inch, 4 ohms resistance.....each, $35.00
10 „ 4 „ „ ..... „ 36.00
12 „ 4 „ „ ..... „ 40.00
14 „ 4 „ „ ..... „ 43.50
15 „ 4 „ „ ..... „ 46.00
16 „ 4 „ „ ..... „ 50.00
18 „ 4 „ „ ..... „ 60.00

Circuit closing attachment to close auxiliary circuit and attract attention when gong needs rewinding.....extra, 3.00

GONGS, Electro-Mechanical.

Electro-Mechanical Gongs (Continued).

The "Star."

Designed for indoor use where loud and unerring alarms are required. Will strike 300 blows at one winding. Polished oak or black walnut case, glass front.

Style A. Single stroke, open circuit, 10 ohms resistance, furnished with a device for connecting in alarm bell to show when gong needs rewinding.

Style B. Continuous ringing, open circuit, 10 ohms resistance. Special device may be added to order for fire alarm purposes, causing gong to keep ringing if circuit has been broken, provided one electrical impulse has reached gong.

Style C. Single stroke, closed circuit, 25 ohms resistance (20 to 30 ohms without extra charge), also furnished with alarm device.

Style D. Continuous ringing, closed circuit, 25 ohms (20 to 30 ohms without extra charge).



Star Watertight Gong.

The "Star" Watertight Gongs (see Bells).

Designed for outdoor and mine work, mechanism encased in weatherproof iron case, with rubber gaskets and protected binding-posts. Sleet guard keeps ice and snow off gong, and guard keeps birds from nesting under gong. May be wound by hand, by key, or by pole.

Style E. Single stroke, open circuit, 10 ohms resistance.
,, F. Same as Style E, but with alarm device added.
,, G. Continuous ringing, open circuit, 10 ohms resistance.
,, H. Single stroke, closed circuit, 25 ohms resistance.
,, J. Same as Style H, but with alarm device added.
,, K. Continuous ringing, closed circuit, 25 ohms resistance.

Sizes.	Styles A, B, E or G.	Styles C, D, H or K.	Style F.	Style J.
8-inch	$28.00	$30.00	$29.00	$31.00
10 ,,	32.00	34.00	33.00	35.00
12 ,,	38.00	40.00	39.00	41.00
14 ,,	44.00	46.00	45.00	47.00
15 ,,	48.00	50.00	49.00	51.00
18 ,,	56.00	58.00	57.00	59.00

GONGS, Foot and Roof.

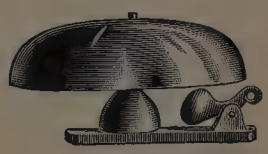
Foot Gongs, No. S=1452.


Foot Gong.

The size most commonly used on electric street cars is the 10-inch tinned.

	Foot Attachment only.	Complete Black or Tinned.	Complete Nickeled
8-inch	$ .50	$1.20	$1.50
9 ,,	.52	1.42	1.82
10 ,,	.54	1.54	2.04
11 ,,	.56	1.86	2.36
12 ,,	.60	2.00	2.80
14 ,,	.70	2.40	3.70
16 ,,	.80	3.00	4.80

Roof Gongs, No. S=1453.


Roof Gong.

	Roof Attachment only.	Complete Black or Tinned.	Complete Nickeled
8-inch	$ .80	$1.50	$1.80
9 ,,	.82	1.72	2.12
10 ,,	.84	1.84	2.34
11 ,,	.86	2.16	2.66
12 ,,	.90	2.30	3.10

GOOSE Irons (see Irons, electric flat).

GOOSE Neck (see Fixtures, Brackets, etc.).

GRAPHITE Bushings (see B)

GRAVITY Battery (see B)



Albany Grease.

GREASE.

Albany Grease, No. S-1454.

In ordering specify whether summer or winter grease is desired.

Cans of 5, 10, 25 lbs.	per lb.,	$ .20
,, of 50 lbs.	,,	.18
Kegs of 100 lbs.	,,	.16
Half barrels of 200 lbs.	,,	.13
Barrels of 400 lbs.	,,	.12

GREASE Paint Heater (see H).
GREEN Flash Shades (see S).
GRIDDLE Cake Cookers (see Toasters and Broilers).
GRIDS, Electric (see Broilers).
GRINDERS (see Motors, power).
GRIP-Arm (see Arms, cross).
GRIPS


Rope Grip.



Rope Grip.

A substitute for a knot in bell cord and for splicing in an end.

No. 8. Japanned (for No. 8 cord)	per doz.,	$ .20
,, 12. ,, (or tinned) for No. 12 cord	,,	.30

No. 12 will also splice No. 8 cord.

Keough Cord Grip (see Bushing, socket).

For attachments to $\frac{1}{8}$-inch sockets, bracket rosettes, pendant switches, "Diamond H" receptacle plugs, and $\frac{1}{8}$-inch nipples for any size of cord.

Positively locks all sizes of cord relieving binding-posts of all strain. Fulfills every requirement of underwriters.

No. S-1455. Keough cord grip	each,	$ .10


Cord Grip Handle.


Cord Grip.

Keough Cord Grip and Socket Handle.

A combined socket handle and cord grip for use as a portable lamp. Relieves the socket of all strain. Black finish.

No. S-1456. Keough cord grip handle	each,	$ .24

The Gem Wire Grip
(see Come-Alongs).

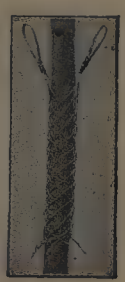
This is a device for gripping wires and cables without injury to same, preparatory to hauling.

It consists of wires so woven that if placed over the end of a wire or cable, a pull at the loop end immediately tightens every wire of the net so that it takes a firm hold enabling one to pull the largest cables through long stretches of underground conduit, the end of the cable being actually protected rather than injured. Any number of single wires may be bunched together and pulled by one grip in the same way.

It is made in three styles, — with a single eye or loop at the end for pulling the end of wires or cable, with a double eye for slipping over the end and along to some point on the cable where the strain is to be applied, and a split style to be placed on cable when it cannot go over end and to be laced in place.

Standard length is 24-inch.


Single Eye Grip.


Double Eye Grip.

Regular Grips, No. S-1457.

No. 14. Duplex, $\frac{1}{4}$-in. to $\frac{1}{2}$-in. grips	each,	$ .70
$\frac{3}{4}$,, ,, $1\frac{1}{4}$,, ,,	,,	2.50
$1\frac{1}{2}$,, ,, 2 ,, ,,	,,	3.00
$2\frac{1}{2}$,, ,, 3 ,, ,,	,,	3.50
For 36-in. lengths, add	,,	1.20
,, 48 ,, ,, ,,	,,	2.40
,, heavy weight wire add	,,	20%
,, double eye grips, add	,,	50%


Split Grip.

Split Grips, No. S-1458.

$\frac{3}{4}$-in. to $1\frac{1}{4}$-in. grips	each,	$4.25
$1\frac{1}{2}$,, ,, 2 ,, ,,	,,	5.00
$2\frac{1}{2}$,, ,, 3 ,, ,,	,,	5.60

Special prices in quantity.

GROOVERS.


No. 4676.

Floor Groovers.

No. 4676. Medium size	each,	.60
,, 4677. Large ,,	,,	.90



Trolley Rope Guard.



Trolley Pole Guard.



No. 11.



No. 65.



No. 107.



No. 1.



No. 205.



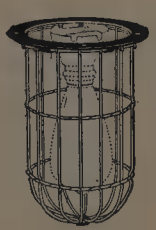
No. 225.



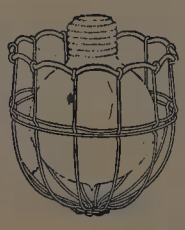
No. 115.



No. 100.



No. 50.



No. 42.

GROUND Detector (see D).

GROUND Rods (see Rods, also Ground pipe fittings under Arresters, lightning).

GUARD Wire Insulator (see I).

GUARDS (see Lamps, portable, and Deflector, air).

Water Guards.

These guards are made of soft rubber and so shaped that water will not run down the pole or trolley rope.

No. S-1459. Hawken's trolley pole water guard, each, $ .50
,, S-1460. ,, ,, rope ,, ,, ,, .40

GUARDS, Wire.

"Never Break" Lamp Guard.

Made of steel wire and formed in such a manner as to give greatest protection to the bulb.

Packed, 8- 10- and 16-candle, 2 dozen; 32-candle, 1 dozen in a box.

No.	10	10 c. p., lamp size,	light wire	per doz.,	$2.00
,,	11	16 ,, ,,	,,	,,	2.00
,,	12	32 ,, ,,	,,	,,	2.50
,,	20	16 ,, ,,	heavy wire	,,	3.00
,,	22	32 ,, ,,	,,	,,	4.00
No.	63	10 c. p., lamp size,	light wire	per doz.,	$2.00
,,	65	16 ,, ,,	,,	,,	2.00
,,	67	32 ,, ,,	,,	,,	2.50
,,	71	16 ,, ,,	heavy wire	,,	3.00
,,	73	32 ,, ,,	,,	,,	4.00
No.	103	8 c. p., lamp size,	light wire	per doz.,	$2.00
,,	107	16 ,, ,,	,,	,,	2.00
,,	109	32 ,, ,,	,,	,,	2.50
,,	111	16 ,, ,,	heavy wire	,,	3.00
,,	113	32 ,, ,,	,,	,,	4.00
No.	1	16 c. p., lamp size,	light wire	per doz.,	$2.00
,,	2	32 ,, ,,	,,	,,	2.50
,,	3	16 ,, ,,	heavy wire	,,	3.00
,,	4	32 ,, ,,	,,	,,	4.00

Combination Guards.

Consisting of a wire lamp guard in combination with a tin reflector covering half the lamp.

Horizontal.

No.	205	16 c. p., lamp size		per doz.,	$4.50
,,	210	32 ,, ,,		,,	6.00
,,	215	16 ,, ,,	heavy	,,	5.50

Perpendicular.

No.	225	16 c. p., lamp size		per doz.,	$4.50
,,	230	32 ,, ,,		,,	6.00
,,	235	16 ,, ,,	heavy	,,	5.50

Chip Guards.

A wire guard covered with a fine mesh screen, for use in machine shops where clips are likely to fly and break the bulb.

No.	75	16 c. p.	(like No. 65)	per doz.,	$3.50
,,	77	32 ,,	(like No. 67)	,,	4.50
,,	115	16 ,,	(like cut)	,,	3.50
,,	117	32 ,,	(,, ,,)	,,	4.50

Bung Hole Guard.

No. 100 ..... Bunghole guard ..... per doz., $6.00

Heavy Ceiling Guard.

No.	50	16 c. p.		per doz.,	$9.00
,,	52	32 ,,		,,	12.00

Baby Lamp Guards.

No. 42 ..... 16 c. p. ..... per doz., $2.00

Use 3¼ holders.



No. 40.

GUARDS, Wire.

"Never Break" Lamp Guards (Continued).

Reflector Lamp Guard.

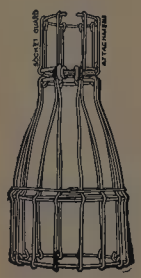
No. 40.....50 c. p., $3\frac{1}{2}$ x $2\frac{7}{8}$.....per doz., $4.00

Waterproof Socket Guards.

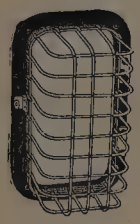
These guards fit porcelain, mica, and hard rubber sockets.

			Without Socket Gd.	With Socket Gd.
No. 5.....	16 c. p., light.....	per doz.,	$2.00	$3.00
,, 6.....	32 ,, ,, ...	"	2.50	3.50
,, 7.....	16 ,, heavy.....	"	3.00	4.00
,, 8.....	32 ,, ,, ...	"	4.00	5.00

NOTE.—If wanted with socket guard designate by use of letter A, as 5A, etc.



No. 5A.



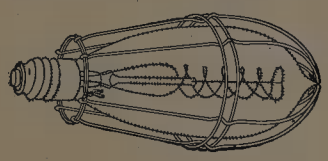
No. 54.

Lamp Guards.

Heavy Foundry or Wall Guards.

Open on hinges, well braced all around.

No. 54....16 c. p., lamp size, 11 x 5 in.....per doz., $30.00
,, 56....32 ,, ,, 12 x 6 ,, ... ,, 37.50



No. 60.

Sign Lamp Guards.

For 1 to 4-candle power lamps.

No. 60.....Like cut.....per doz., $2.00
,, 101..... ,, No. 107 style.... ,, 4.00
,, 61..... ,, " 65 style..... ,, 4.00



No. 150.



No. 140.

Meridian Lamp Guards.

No. 150.....For 4-in. lamps.....per doz., $5.50
,, 152..... ,, 5 ,, ,, ... ,, 6.50
,, 154..... ,, 6 ,, ,, ... ,, 7.50
,, 156..... ,, 8 ,, ,, ... ,, 8.50

Two-Ring Guards.

Used with $3\frac{1}{4}$-inch holder.

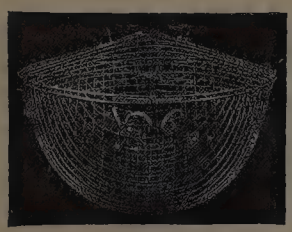
No. 140.....16 c. p., light.....per doz., $1.50
,, 142.....32 ,, ,, ... ,, 2.00

Morse Cluster Guards.

For use in unloading vessels, cars, or excavating under ground, etc.

No. 82A.....12-in. diameter.....per doz., $28.00
,, 84A.....14 ,, ,, ... ,, 32.00
,, 86A.....16 ,, ,, ... ,, 36.00
,, 88A.....18 ,, ,, ... ,, 40.00
,, 90A.....20 ,, ,, ... ,, 44.00
,, 92A.....22 ,, ,, ... ,, 52.00
,, 94A.....24 ,, ,, ... ,, 60.00

Special sizes made to order.

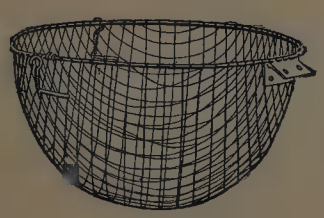


No. 82A.

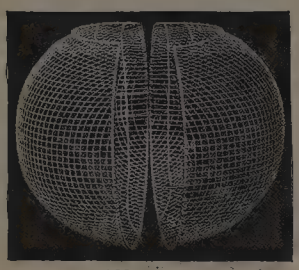
Cluster Guards.

Similar to the Morse cluster guard, lower part only, but with hinge and snap hooks or eye bolts for shade.

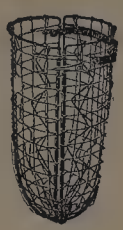
No. 82.....12-in. diameter.....per doz., $14.00
,, 84.....14 ,, ,, ... ,, 16.00
,, 86.....16 ,, ,, ... ,, 18.00
,, 88.....18 ,, ,, ... ,, 20.00
,, 90.....20 ,, ,, ... ,, 22.00
,, 92.....22 ,, ,, ... ,, 26.00
,, 94.....24 ,, ,, ... ,, 30.00



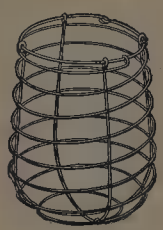
No. 82.



No. 300.



No. 326.



No. 4.





No. 5.

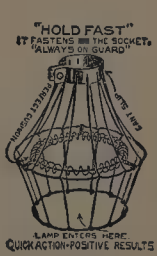


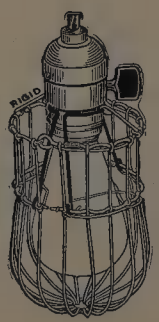
No. 8.

No. 5485.

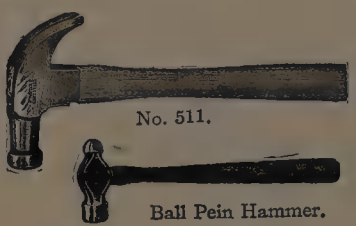


No. 5334.





No. H-1461.



No. 511.

Ball Pein Hammer.

GUARDS, Wire (Continued).

"Never Break" Arc Globe Guards.

Steel wire cloth. Steel spring cushion.

No. 300.....12-in. globe, coarse mesh.....per doz., $30.00
,, 304.....14 ,, ,, ,, ... ,, 36.00

"Never Break" Inner Globe Guards.

No. 326.....Any size to order.....per doz., $18.00

Send all dimensions of globes in ordering, or style number if possible.

Wagor Lamp Guards.

No. 4. Solid tinned spiral wire.....per gross, $14.00
,, 5. ,, ,, lengthwise wire..... ,, 15.00
,, 8. ,, ,, open end..... ,, 15.00

Nos. 4 and 5 fit $3\frac{1}{4}$-inch holder. No. 8 fits $2\frac{1}{4}$-inch holder.

No. H-1461 "Protector H" lamp guard fits any brass socket without holder. Small spring wires keep lamp central. Opens at socket.

16 c. p., size of guard, tinned.....per gross, $30.00
32 ,, ,, ,, ,, ,, ... ,, 35.00

Hubbell Lamp Guards.

This lamp guard is simple, rigid, durable, and quickly attached.

Fits any standard socket shell, cannot become loose, and does not depend on lamp bulb for support.

		Std. Pkg.	Pkg. Weight.	Price, Doz.
No. 5485....	16 c. p. lamp guard...	1 gross	30 lbs.	$3.50
,, 5487....	32 ,, ,, ...	1 ,,	36 ,,	3.75

For Use with Hubbell Shades.

This guard is designed to be used in connection with our shades, as per illustration.

It is practically the same as No. 5485, excepting the threaded neck is made sufficiently large to engage the threaded neck of the shade.

		Std. Pkg.	Pkg. Weight.	Price, Doz.
No. 5534....	16 c. p. lamp guard...	1 gross	30 lbs.	$3.50
,, 5536....	32 ,, ,, ...	1 ,,	36 ,,	3.75

Holdfast Guard.

Recommended by the underwriters. The only lamp guard that can be used as a shade holder. Made for both brass and weatherproof sockets. Lamps can be replaced without disturbing guard. Spiral cushion takes all jar. No. 20 wire ribs, collars $1\frac{1}{4}$ inch diameter for brass sockets.

No. S-1461....16 c. p. size guard only.....per doz., $4.00
,, S-1462....32 ,, ,, ,, ,, ... ,, 4.70

GUIDE Spreader (see Arms, cross).

GUY Clamps (see C).

GUY Rods (see R).

GUY Wire (see Wire, iron, and Rope, wire).

HACK Saw (see S).

HALF Shade (see S).

HAMMERS.

Maydole's Nail Hammers.

Solid crucible steel, adze eye, nickel plated finish.

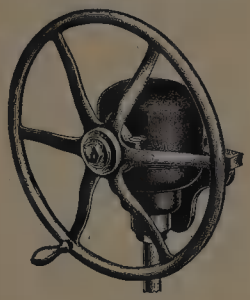
No. 511 .....1 lb. 3 oz.....per doz., $12.50
,, $511\frac{1}{2}$.....1 ,, ... , 11.50
,, 512 .....12 oz..... ,, 10.75
,, 513 ..... 7 ,, ... ,, 10.00

Maydole's Ball Pein Hammers

No. 70 ..... 3 lbs.....per doz., $20.00
,, $70\frac{1}{2}$..... $2\frac{1}{4}$,, ... ,, 17.00
,, 71 ..... $1\frac{7}{8}$,, ... ,, 15.00
,, 72 ..... $1\frac{1}{2}$,, ... ,, 13.50
,, 73 ..... $1\frac{1}{4}$,, ... ,, 12.25
,, 74 ..... 1 ,, ... ,, 11.25
,, 75 .....13 oz..... ,, 10.50
,, 76 .....10 ,, ... ,, 10.00
,, 77 ..... 7 ,, ... ,, 9.50



Beverly Brake Handle.



Beverly Brake Wheel.



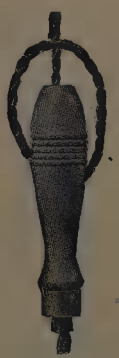
Pfingst Brake Handle.



Lyon Brake Handle.



No. 4995.



Adjustandle.



Perfection Tool Handle.

HANDLES, see following headings:

Handles, Brake.
" Lamp (see Lamps, portable).
" Socket.
" Tool.

HANDLES, Brake.

The Beverly Ratchet Clutch Brake Handle.

Made of the best composition, with clutches of machine cut steel, workmanship and finish of the best.

No. S-1463....12-inch brake handles.....per pair, $15.50
" S-1464....13 " " " ..... " 16.00
" S-1465....14 " " " ..... " 16.50
" S-1466....15 " " " ..... " 17.00

The Beverly Ratchet Clutch Vertical Brake Wheel.

Simple and powerful, giving a leverage of a 15-inch handle. Steel clutches, machine cut, best workmanship and finish.

Takes up 10 inches of space on car platform, and especially adapted for vestibule cars.

No. S-1467....15-inch brake wheel.....per pair, $80.00
" S-1468....18 " " " ..... " 90.00

Lyon Brake Handle

Will take up 1-1000 inch and cannot slip. Steel rolls and steel barrel.

No. S-1469. Lyon brake handle.....per pair, $25.00

Pfingst Brake Handle.

Made entirely of steel and phosphor bronze.

No. S-1470. Pfingst brake handle.....per pair, $16.00

HANDLES, Lamp (see Lamps, portable).

HANDLES, Socket.

Socket or Lamp Handles

(see also Lamps, portable, and Grips, cord).

No. 6250. With $\frac{1}{8}$-inch brass nipple to fit standard sockets.....each, $ .24
No. 4995. With $\frac{3}{8}$-inch brass nipple to fit $\frac{3}{8}$ tap sockets, each, .28

Stewart's " Adjustandles."

When " adjustandles " are used there can be no sagging on socket connections, as the suspended weight is borne by the V-shaped slot, thereby minimizing danger of short circuit in socket.

It is a combination socket handle and cord adjuster.

No. S-1471. With metal thread for $\frac{1}{8}$ socket..per 100, $8.00
" S-1472. " " " " $\frac{3}{8}$ " .. " 12.00

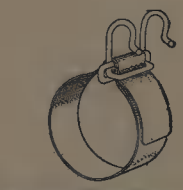
HANDLE, Tool.

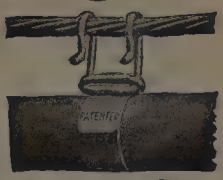
Perfection Tool Handle.

A handy tool for electricians' use, with points carried in handle.

No. S-1473. Perfection tool handle.....each, $1.25

HANGER Boards (see Boards, hanger, and Cut-Outs, arc).





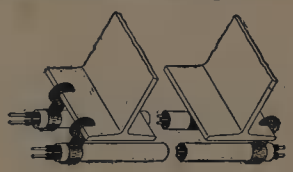
Boston Cable Clip.



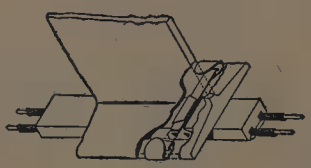
Shawmut Marlin Cable Hanger.



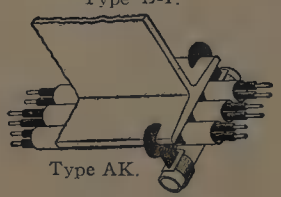
Locke Cable Hanger.



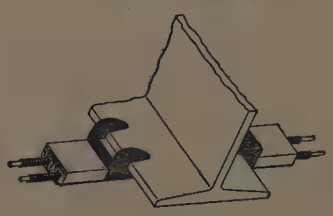
Type A.



Type E-1.



Type AK.



Type D-1.

HANGERS, Cable (see Clamps, suspension).

Boston Cable Clips.

The original Boston cable clip, consisting of two pieces of steel wire and a strip of zinc, is one of the simplest and best devices for hanging aërial cable.

It is made in several different lengths of strap and is quickly and easily adjusted for any size of cable and may be as easily removed and used again.

No.	1	6-in.	strap,	with	No.	1	hook	per 1000,	$40.00
,,	2	7	,,	,,	,,	1	,,	,,	40.00
,,	3	8	,,	,,	,,	1	,,	,,	40.00
,,	4	6½	,,	,,	,,	4	,,	,,	40.00
,,	5	6½	,,	,,	,,	1	,,	,,	40.00
,,	7	7	,,	,,	,,	4	,,	,,	40.00
,,	8	8	,,	,,	,,	4	,,	,,	40.00

The No. 1 hook fits ¼-in. messenger wire.
,, ,, 4 ,, ,, ½ ,, ,, ,,
Special straps exceeding 8 in., extra ..... per 1000, 2.50

Shawmut Marlin Cable Hanger.

This is a cheaper hanger than the Boston and is made in two grades.

No. 1 grade conforms to American T. & T. Co.'s specifications and is made of the best quality 3-ply house line, with hooks galvanized after forming.

No. 2 grade is made of a cheaper quality of house line, the wire not being galvanized after forming.

Diameter of wire used in both grades is .144.

					No. 1 Grade.	No. 2 Grade.
No.	3M	9-inch	loop	per 1000,	$9.50	$8.50
,,	4M	10	,,	,,	10.00	9.00
,,	5M	11	,,	,,	10.40	9.40
,,	6M	12	,,	,,	10.80	9.80
,,	7M	13	,,	,,	11.20	10.20
,,	8M	14	,,	,,	11.60	10.60
,,	12M	16	,,	,,	12.40	11.40
,,	15M	19	,,	,,	18.00	17.00

Locke Aerial Conduit Rings.

The Locke rings are especially adapted for cabling insulated telephone service twisted pair wires as well as lead cables.

The rings are 1¾ inches in diameter, of steel, corrugated and galvanized. They are made for messenger wire No. 6 gauge iron, 5- or 7-strand steel, or other wire of suitable strength, and may be clamped to it by a special form of plier which will prevent its slipping from position desired, or the rings may be locked by a locking wire equipped with pins and drawn into position and fastened at the poles.

No. S-1476. Locke rings, 1¾-inch..... net, per 1000, $15.00
,, S-1477. ,, ring pliers..... each, 1.25

HANGERS, Conduit and Moulding.

Shawmut Rapid Conduit and Moulding Hangers.

These hangers are made of thin annealed steel and are designed for the purpose of effecting a simple and rapid method of supporting conduit and moulding to the bottom of I beams where the work is not concealed.

The Type A style is for pipe at right angles to the beam.
,, ,, AK style is for pipe parallel to the beam.
,, ,, D-1 style is for moulding at right angles to the beam.
The Type E-1 style is for moulding parallel to the beam.

	List Price per 100.
Type A-1 and AK-1 hanger takes pipes ½ in. to 1 in...	$12.00
,, A-2 ,, AK-2 ,, ,, ,, 1¼ ,, ,, 2 ,, ..	14.00
,, A-3 ,, AK-3 ,, ,, ,, 2½ ,, ,, 3 ,, ..	16.00
,, D-1 hanger takes standard A-2 moulding.....	9.00
,, E-1 ,, ,, ,, A-2 ,, ...	12.00



Cutter's High Voltage Insulator.



Cutter's High Voltage Rope Clamp.



Cutter's Jupiter Insulator.



970.



1052. 972. 952.



980. 1980. 982. 1982. 983. 1983. 984. 1984. 981. 1981.



No. 3918. No. 26159. No. 26060. No. 39452.

HANGERS, Lamp (see Cut-Outs, arc, and Arms, cross).

Cutter's High Voltage Insulator

Has a double petticoat porcelain bell. The rivets fastening metal cap to porcelain pass under the elongated head of the bolt which supports the hook, so that it cannot drop if porcelain becomes broken. Will outlast any composition insulator when exposed to weather.

No. S-1474. Cutter's high voltage insulator..net, each, $. 50

Cutter's High Voltage Rope Clamp.

Similar to above, but with a clamp for wire rope fastened to the cap of the insulator.

No. S-1475. Cutter's high voltage rope clamp, net each, $ .60

Cutter's Grove Insulator

Combines high voltage insulator with a loop break for line wires, especially adapted for use in summer gardens, exposition buildings, etc., where lamps are looped into series circuits.

No. S-1478. Cutter's grove insulator.....net, each, $ .70

Cutter's Jupiter Insulator.

Similar to Cutter's high voltage insulator, but with greatly enlarged petticoats to give higher surface insulation. Ample for 12,000 volt circuits.

No. S-1479. Cutter's Jupiter insulator.....net, each, $ .75

Fletcher's Hangers and Hooks.

No. 1052.	Insulating lamp hook, 1 knob.....	each,	$ .23
,, 1051.	,, ,, ,, 3 ,, ...	,,	.28
,, 952.	,, ,, hanger, 1 knob.....	,,	.42
,, 972.	,, ,, ,, 3 ,, ...	,,	.47
,, 970.	,, ,, ,, 1 ,, ...	,,	.33
,, 974.	,, ,, ,, 3 ,, ...	,,	.38
,, 980.	Iron hook (for ½-in. rope)	,,	.12
,, 981.	,, loop (,, ,, ,,)	,,	.12
,, 982.	Insulated hook, 1 knob (¾-in. rope) ...	,,	.40
,, 983.	Ins'd spring hook, 1 knob (¾-in. rope)..	,,	.45
,, 984.	,, snap ,, 1 ,, (¾ ,, ,,)..	,,	.54
,, 1980.	Iron hook (for ¾-in. rope)	,,	.12
,, 1981.	,, loop (,, ¾ ,, ,,)	,,	.12
,, 1982.	Insulated hook, 1 knob (¾-in. rope)....	,,	.40
,, 1983.	Ins'd spring hook, 1 knob (¾-in. rope)..	,,	.45
,, 1984.	,, snap ,, 1 ,, (¾ ,, ,,)..	,,	.54

HARD Fibre (see F).

HARD Rubber (see R).

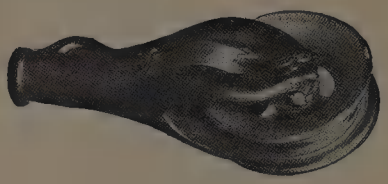
HARD Rubber Bushings (see B).

HARPS, Trolley.

Union Standard Trolley Harps.

			Each.
No. 3918.	Standard malleable harp, wt. 3 lbs.,	4 oz.,	$ .90
,, 26060.	Form 10 high speed ,, ,,	4 ,,	1.30
,, 26159.	,, 12 ,, ,, ,, ,,	3 ,, 10 oz.,	1.30
,, 39452.	,, 21 ,, ,, " ,,	3 ,, 12 ,,	1.30

HARPS, Trolley (Continued).



Rochester Trolley Harp.



No. 1.



No. 2.



No. 3.



No 4.



No. 5.



No. 8.

Rochester Trolley Harps.

These harps are made in four styles, the standard No. 5 for regular 4-inch wheels, the No. 6 for 5- and 6-inch wheels, and the Nos. 4 and 3 for the H. & M. special wheels of the same numbers. The No. 6 standard is so arranged that you can take up the wear of the contact washers, which prevents rattling and side play.

A recent improvement consists of so designing the harp that the contact washers and springs are absolutely protected from any accidental touching of the trolley wire which is so apt to melt them. Another good point is that these harps have more contact with the wheel than any other.

No.		Each.
5.	Standard harp, $\frac{1}{2}$-in. axle, for 4-in. wheels	$1.00
6.	,, ,, $\frac{5}{8}$,, ,, ,, 5- & 6-in. wheels,	1.50
4.	Special ,, $1\frac{1}{8}$,, ,, ,, H. & M. wheels.	1.20

Kalamazoo Trolley Harp.

All harps are of malleable iron.

No. 1. For 6-in. wheels, 1-in. *hole* in shank, $1\frac{1}{2}$ in. between washers, $\frac{5}{8}$-in. cold rolled steel pin ..... each, $1.80

No. 2. For 6-in. wheels, $\frac{3}{4}$-in. *rod* in shank, $1\frac{1}{2}$ in. between washers, $\frac{5}{8}$-in. cold rolled steel pin ..... each, 1.80

No. 3. For 6-in. wheels, $\frac{3}{4}$-in. rod in shank, $1\frac{1}{2}$ in. between washers, $\frac{5}{8}$-in. cold rolled steel pin ..... each, 1.80

No. 4. For 6-in. wheels, 1-in. *hole* in shank, 2 in. between washers, $\frac{5}{8}$-in. or $\frac{3}{4}$-in. cold rolled steel pin ..... each, 2.00

No. 5. For 5-in. wheels, $\frac{3}{4}$-in. rod in shank, $1\frac{1}{2}$ in. between washers, $\frac{1}{2}$-in. cold rolled steel pin ..... each, 1.50

No. 8. For 4-in. wheels, $\frac{3}{4}$-in. rod in shank, $1\frac{1}{2}$ in. between washers, $\frac{1}{2}$-in. cold rolled steel pin ..... each, 1.50

No. 129. Contact washers only for harps Nos. 5 and 8, diam. $1\frac{5}{16}$ in., hole $\frac{9}{16}$ in., each, .06

No. 130. Contact washers only (old style) for harps Nos. 1, 2, and 4, diam. $1\frac{5}{16}$ in., hole $\frac{21}{32}$ in ..... each, .06

No. 133. Contact washers only for harps Nos. 1, 2, and 4, diam. $1\frac{9}{16}$ in., hole $\frac{21}{32}$ in ..... each, .06

No. 214. Springs only for harp No. 8, $3\frac{1}{16}$ in. long, 1 in. across slot ..... per pair, .30

No. 216. Springs only (old style) for harps Nos. 1, 2, and 4, $4\frac{1}{3}$ in. long, 1 in. across slot ..... per pair, .30

No. 218. Springs only for harp No. 5, $3\frac{7}{16}$ in. long, $1\frac{1}{16}$ in. across slot .... per pair, .30

No. 219. Springs only for harps Nos. 1, 2, and 4, $4\frac{7}{16}$ in. long, $1\frac{9}{32}$ in. across slot, per pair, .30

NOTE. — Old style washers, Nos. 127 and 128, can be furnished at $2.50 per 100. Old style springs Nos. 212 and 213 can be furnished at 30 cents per pair.



Hatchet.



S.-H. Standard Headlight.



Syracuse Changeable Headlight.

HATCHETS (see also Axes).

Electricians' Hatchets.

No. 0	3- inch cut	per doz.,	$7.50
,, 1	3½ ,, ,,	,,	8.00
,, 2	3⅞ ,, ,,	,,	8.50

HAT Irons, Electric (see I).

HEADLIGHTS.

S.-H. Standard Headlight, Incandescent.

An iron shell holds and encloses an Edison porcelain lamp receptacle and a highly polished parabolic reflector. The brass ring holding glass front snaps on to the shell.

No. S-1483. S.-H. headlights ..... per pair, $12.00

Syracuse Changeable Headlights, Incandescent.

Reflector 12 inches in diameter, projects 7½ inches from dash. Designed to take the place of two or four regular headlights. May be moved instantly from one end to the other of the car and can be used on closed cars while the open cars are laid up, etc. No switches required. Placing lamp in position lights it.

Front Contact Type, 16 C. P.

Complete equipment includes reflector with stem and receptacle with mechanism.

No. 17870. One complete equipment, for 2 cars, double end	$15.70
No. 17871. One complete equipment, for 1 car, double end	11.20
No. 17872. One complete equipment, for 1 car, single end	8.95
No. 17873. One complete reflector, with jacket and stem	6.70
No. 17874. One complete receptacle, with mechanism	2.25

Side Contact Type, 16 C. P.

Complete equipment includes reflector with stem and receptacle with mechanism.

No. 17875. One complete equipment, for 2 cars, double end	$15.70
No. 17876. One complete equipment, for 1 car, double end	11.20
No. 17877. One complete equipment, for 1 car, single end	8.95
No. 17878. One complete reflector, with jacket and stem	6.70
No. 17879. One complete receptacle, with mechanism	2.25

Special Contact Type, 32 or 50 C. P.

Complete equipment includes reflector with stem and receptacle with mechanism.

No. 17880. One complete equipment, for 2 cars, double end	$19.30
No. 17881. One complete equipment, for 1 car, double end	13.30
No. 17882. One complete equipment, for 1 car, single end	10.30
No. 17883. One complete reflector, with jacket and stem	7.30
No. 17884. One complete receptacle, with mechanism	3.00

HEADLIGHTS (Continued).



No. 1559.

No. 1559, Electric Incandescent Headlight.

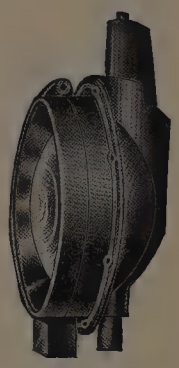
Chicago City Railway Standard, 8⅜-inch, "Kirby-Neal" patents. This headlight has no reflector, but in lieu thereof is enameled white on the inside of its case and is provided with semaphore lens.

Adapted to be set in an opening cut in the dashboard and to be rigidly secured to the same.

Made of heavy cast iron, lens holders of malleable iron, socket holders for ½- or ⅜-inch sockets as ordered.

Projects in front of dash 4¾ inches, rear projection from front of dash 2¾ inches, diameter of opening in dash 7¾ inches, diameter of lens 8⅜ inches.

No. 1559. Headlight complete, including adjustable socket holder and platform socket for conduit, but not the lamp, lamp socket or conduit, net, each, $8.67



No. 1561.

No. 1561, Electric Incandescent Headlight.

Brooklyn Heights Standard, 8-inch, "Kirby-Neal" patents. This headlight takes an 8-inch semaphore lens, mounted in a patented protection lens holder. It is enameled white inside, is of true parabolic form so that lamp is in focus with lens and parabola.

Adapted to set in opening of dash and to be rigidly attached to same. Has improved adjustable socket holder and movable conduit for protecting the conducting wires.

Projects in front of dash 2¾ inches, rear projection from front of dash 3⅝ inches, diameter of opening in dash 9⅞ inches.

No. 1561. Headlight complete, including socket holder and platform socket for conduit but not the lamp, lamp socket, nor the conduit.....net, each, $8.67

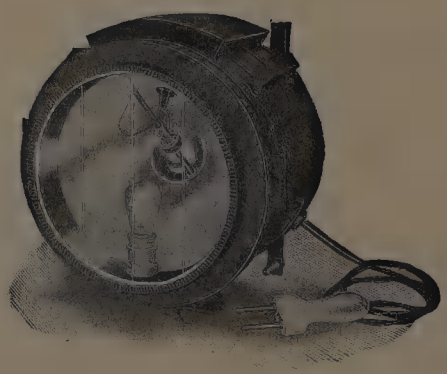
Imperial Arc Headlights.

Especially adapted for interurban electric railways. The arc light may be extinguished as the car enters the city and the incandescent attachment is sufficient for the city use. Interchangeable with other makes, light weight, 12-inch parabolic aluminum reflector, carbons at an angle of 45 degrees using all the light of the crater of the arc, automatic feed, current consumption 3½ amperes at 550 volts, although lamp will operate on 1 ampere and may be increased to 5 amperes if desired.

A complete equipment consists of 1 arc headlight, 2 dash hangers, 1 main resistance, 1 fuse block with enclosed fuse, 2 plug receptacles, 2 snap switches, 2 inner globes, 3 upper carbons, 3 lower carbons.

The inner globe used on this lamp is No. 135 (see Globes, arc lamp).

The carbons used are 8 x $\frac{5}{16}$ inches for the upper carbon and 4½ x ⅜ inches for the lower, both solid.



No. 17836.

Type A, with Incandescent Attachment.

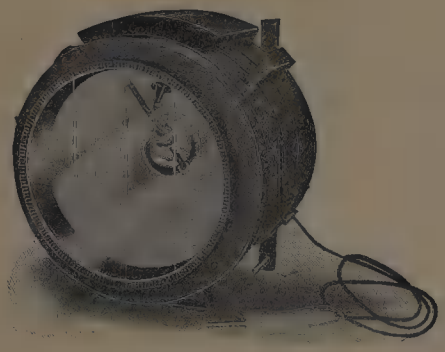
No. 17836. Complete double end equipment..... $41.70

No. 17837. Complete single end equipment..... 39.76

(*Continued on next page.*)

HEADLIGHTS.

Imperial Arc Headlights (Continued).



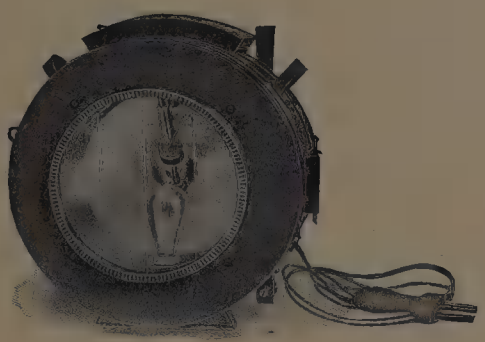
No. 17841.

Type A, with Incandescent Attachment.

No. 17838. Double end equipment less fuse, fuse block, and snap switches ..... $ 38.53
No. 17839. Single end equipment less fuse, fuse block, and snap switch 37.86
No. 17840. Equipment less wiring equipment 31.97

Type B, without Incandescent Attachment.

No. 17841. Complete double end equipment $34.75
No. 17842. Complete single end equipment 33.81
No. 17843. Double end equipment less fuse, fuse block, and snap switches 33.20
No. 17844. Single end equipment less fuse, fuse block, and snap switch 32.74
No. 17845. Equipment less wiring equipment 25.02



No. 17846.

Type C, with Incandescent Attachment in Same Case.

Same as Type A except door is 1½ inches deeper and has a smaller opening. Reflector is 9 inches diameter, 6 inches extension, and projects a narrow beam of light far ahead.

No. 17846. Complete double end equipment $41.70
No. 17847. Complete single end equipment 39.76
No. 17848. Double end equipment less fuse, fuse block, and snap switches 38.53
No. 17849. Single end equipment less fuse, fuse block, and snap switch 37.86
No. 17850. Equipment less wiring equipment 31.97



No. 17851.

Type D, without Incandescent Attachment.

Same as Type C except that it does not have the incandescent lamp attachment.

No. 17851. Complete double end equipment $34.75
No. 17852. Complete single end equipment 33.81
No. 17853. Double end equipment less fuse, fuse block and snap switches 33.20
No. 17854. Single end equipment less fuse, fuse block and snap switch 32.74
No. 17855. Equipment less wiring equipment 25.02

HEADLIGHTS.

Imperial Arc Headlights (Continued).

Type E, without Incandescent Attachment.

Same as Type B but fitted with metal screen dimmer.

No. 17856. Complete double end equipment.... $36.84
,, 17857. ,, single ,, ,, ... 35.90
,, 17858. Double end equipment less fuse, fuse block, and snap switches.... 35.28
No. 17859. Single end equipment less fuse, fuse block, and snap switch..... 34.82
No. 17860. Equipment less wiring equipment... 27.11

Type F, without Incandescent Attachment.

Same as Type D but fitted with metal screen dimmer.

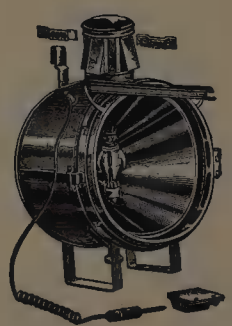
No. 17861. Complete double end equipment... $36.84
,, 17862. ,, single ,, ,, ... 35.90
,, 17863. Double end equipment less fuse, fuse block, and snap switches.... 35.28
No. 17864. Single end equipment less fuse, fuse block, and snap switch..... 34.82
No. 17865. Equipment less wiring equipment... 27.11



Climax Combination Headlight.



Climax Plain Arc Headlight.



Mosher Arc Headlight.

Climax Headlights.

Climax Combination Headlight.

The Climax Combination Headlight is a two-circuit lamp, — arc and incandescent, — built especially for interurban use, the arc light for outside and the incandescent for inside the city limits.

Weight 26 pounds, width 14 inches, depth 12 inches, candle power 2,000 to 3,000, current consumption 1½ to 3½ amperes. The inner globe used is No. 55 (see Globes, arc lamp). The carbons used are ⅜-inch for both upper and lower. Each headlight furnished with positive plug, the hangers on the back case being the negative contact.

No. S-1484. Climax combination headlight complete.....each, $40.00
Ditto arranged for double end equipment.....each, 43.00

Climax Plain Arc Headlight, 14-inch.

Same as the combination style except that the incandescent circuit is eliminated, and but one plug contact is furnished.

No. S-1485. Climax plain headlight, 14-in. each, $36.00
Ditto arranged for double end equipment.....each, 39.00

No. 1477, Mosher Arc Headlights.

Automatic feed, non-metallic circuit, dash electric straight arc headlight for outside of dash.

Low priced, automatic in operation, the feed being controlled by a series magnet so arranged that any interruption of current through the lamp circuit will feed the carbons together and instantly form the arc upon restoration of current, and it will perform such function on a voltage varying from 250 to 750 volts. Uses carbons 9 x 5/16 and 4½ x ⅜-inch for upper and lower, respectively.

One resistance, one plug connector, two plug sockets, and dash brackets for both ends of car will be furnished with each headlight unless otherwise ordered. Curtain attachments not furnished unless called for. The inner globe used on this lamp is No. 74 (see Globes, arc lamp).

Mosher arc headlight, 10 in., wt. 24 lbs.....each, $31.00
,, ,, ,, 12 ,, ,, 29 ,, ... ,, 34.00
,, ,, ,, 14 ,, ,, 34 ,, ... ,, 49.00
,, ,, ,, 16 ,, ,, 39 ,, ... ,, 60.00

HEADS, Leather Nail (see Washers).

HEAD, Terminal.

The Moon Terminal Head.

The most important office which a terminal head performs is the perfect sealing of the cable end and the protection of the paper insulated wires of a telephone cable from injury by moisture or interference.

The moon heads are hermetically sealed, the cable passing in through the nozzle at the lower end of the head, the nozzle being sealed to the head by a plumber's wipe joint. The cable wires are distributed to the terminal connections on the inside of the head and these connections extend through insulating bushings to the outside of the head.



Fuse Terminal with Cover.



Plain Terminal.

Fuse Terminal Head.

For pole use out of doors. No pot head or splicing necessary. Each terminal connection on the outside of the head has means for holding a fuse of delicate fuse wire. Means also provided for diverting lightning, electric light, or trolley currents, etc., with carbon or copper arresters.

Connections. Pairs of Wires.	No. of Wires.	Sizes of Head Over All. Length of Head.	Width of Head.	Depth of Head.	Size of Outer Casing Over All. Length of Casing.	Width of Casing.	Depth of Casing.	Price. Terminal Head.	Outer Casing.
6	12							$6.70	$3.00
10	20							8.50	3.50
15	30	17½	7½	3½	22	11	6	11.75	3.50
25	52	25	8	4½	26	12	6½	17.00	4.25
35	72	32	8½	4½	34	12	6½	21.50	4.65
50	102	40	8¾	4½	42	12	6½	30.00	5.00
75	152	28	9¾	9½	36	13	10½	41.25	5.75
100	204	36	9¾	9½	44	13	10½	52.50	6.50
125	254	44	9¾	9½	52	13	10½	65.25	7.00
150	304	52	9¾	9½	60	13	10½	77.50	7.50
200	404	68	9¾	9½	76	13	10½	100.00	8.50

Plain Terminal Head.

For interior exchange use where other fuse protection is used.

Connections. Pairs of Wires.	No. of Wires.	Size of Head Over All. Length of Head.	Width of Head.	Depth of Head.	Size of Outer Casing Over All. Length of Casing.	Width of Casing.	Depth of Casing.	Price. Terminal Head.	Outer Casing.
15	30	17½	6¾	3½	22	11	6	$8.50	$3.50
25	52	25	7¼	4½	26	12	6½	13.25	4.25
35	72	24	8	5½	25	12	7½	16.25	4.65
50	102	24	8	5½	25	12	7½	22.50	4.65
75	152	28½	8	5½	30	12	7½	30.00	5.00
100	204	38	8	5½	39	12	7½	37.50	5.50



Fuse Terminal.



Combination Terminal.

Office Terminal Head.

Equipped with fuses and carbon arresters intended for use in the exchange to receive and seal the cable.

		Price.
15 pairs of wires	30 wires	$13.25
25 ,, ,, ,,	52 ,,	19.50
35 ,, ,, ,,	72 ,,	25.00
50 ,, ,, ,,	102 ,,	35.00
75 ,, ,, ,,	152 ,,	48.55
100 ,, ,, ,,	204 ,,	62.50

Combination Terminal Head and Junction Box.

Including metal outer case.

Combination terminal head (without nozzles).

Distributing	6 pairs of wires	$9.70
,,	10 ,, ,, ,,	11.50
,,	25 ,, ,, ,,	21.50
,,	35 ,, ,, ,,	27.00
,,	50 ,, ,, ,,	35.50

Add to these prices for each self-soldering nozzle, as follows:

Each nozzle for cable,	6 to 10 pairs	$ .75
,, ,, ,, ,,	25 ,, 35 ,,	1.00
,, ,, ,, ,,	50 ,, 100 ,,	1.25
,, ,, ,, ,,	above 100 ,,	1.50

For distributing a larger number or a less number of wires than those mentioned in the list, prices quoted on request.

HEATERS, see following headings:

Heaters, Air (see Radiators).
" Car.
" Coil.
" Curling Iron
" Embossing Press.
" Flask.
" Grease Paint.
" Hot Closet (see Warmers).
" Laundry Roll.
" Water.



Coil Heater.

Air Heaters

(see Radiators, Warmers, plate, etc.).

Car Heaters.

Prices on car-heating equipments for standard cars will be quoted on application.

Coil Heaters.

The immersion coil heater may be used for heating liquid in almost any kind of vessel, all of the heat generated going into the liquid. Special shapes to order.

Copper tubes, nickel plated finish, furnished unless ordered plain.

One-Heat Coils.

Will be provided of such watt capacity as ordered within the limits quoted. When watts are not stated on order the maximum of the coil as listed will be sent.

			Price.
No. 470.	One heat only,	100 to 440 watts	$6.50
" 471.	" " "	440 " 660 "	7.50
" 472.	" " "	700 " 880 "	8.50
" 473.	" " "	900 " 1100 "	10.00
" 474.	" " "	1200 " 1400 "	11.00
" 475.	" " "	1400 " 1650 "	13.00
" 476.	" " "	1700 " 2000 "	15.50
" 477.	" " "	2100 " 2500 "	18.00



No. 1274.

Three-Heat Coils.

Coils with three divisions of heat with connector switch in conductor cord.

		Watts.			
		Min.	Med.	Max.	Price.
No. 480.	Three heats	110	220	440	$8.00
" 481.	" "	165	330	660	9.00
" 482.	" "	220	440	880	10.00
" 483.	" "	275	550	1100	12.00
" 484.	" "	350	700	1400	13.50
" 485.	" "	412	825	1650	16.00
" 486.	" "	500	1000	2000	18.00
" 487.	" "	625	1250	2500	21.50



No. 1281.

Curling Iron Heaters, Portable Type.

When tongs are removed from the heater the current is automatically cut off. May be attached to any lamp socket.

		Watts.	Price.
No. 1274.	Nickel plated. Marbleized base	60	$3.00
" 1275.	Polished brass. " "	60	3.25
" 1276.	Nickel plated. White marble base	60	3.75
" 1277.	Polished brass. " "	60	4.00
" 1278.	Nickel plated, with onyx base	60	4.50
" 1281.	Double heater for two irons, nickel plated, enameled slate base, each heater 60 watts		5.50
No. 1282.	Same. White marble base, nickel plated		6.00



No. 1270.

Curling Iron Heater (Marcel Wave).

This heater is made especially to take the latest style marcel wave curling iron.

			Watts.	Price.
No. 1270.	Nickel plated.	Slate base	140	$6.00
" 1271.	" "	Marble base	140	6.50
" 1272.	Polished bronze.	Slate base	140	7.00
" 1273.	" "	Marble base	140	7.50



No. 1279.

Curling Iron Heaters, Wall Type.

With automatic cut-off when tongs are removed, especially adapted for hotels, steamships, and sleeping cars.

No. 1279. Black enameled slate base. Size, 5 x 5½ inches. Nickel plated automatic switch; 60 watts... $4.50

No. 1279A. Same. White marble base, 5 x 5½ inches, nickel plated 5.00

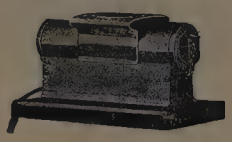
No. 1279B. Same. White marble base, 5 x 5½ inches, polished brass 5.00

HEATERS (Continued).

Curling Iron Heaters, Theatre Type.

The installing of these devices removes entirely the necessity for gas or flame of any kind in theatre dressing-rooms and a serious menace from disaster is eliminated.

Shelf type No. 1280 has cover for grease, paint tray, and wire guard not shown in the illustration. They are made to be screwed to a shelf.



No. 1280.

No. 1280. Nickel plated, marbleized base as described above, with cord and plug; 60 watts.. price, $4.00

No. 1283 wall type, designed to meet the severe requirements of theatre use, the result of close coöperation with several of the most experienced theatre electricians and actors. The product is satisfactory to both.

The combination device has separate controlling switches, so that the curling iron or grease paint may be independently heated. Arranged to screw to the wall or mount on standard outlet boxes, as ordered.

All switches are a part of the device. Watts, 60.

Nickel plated on slate base..... $6.50



No. 1283.

Embossing Press Heaters.

Because of the great variety of sizes of press-heads in use, it is not possible to print a list of prices. Heaters consist practically of cast-iron plates one inch thick, which are applied to the working face of the heads and on which the embossing dies are placed. When once applied they constitute a part of the head. They are usually made in two or more sections, so that only a part of the face of the head need be heated when the entire surface is not required.

By the method of construction the heater is brought to working temperature in from five to eight minutes from time of turning the switch.

The appreciable heat is confined to the face of the head, and no heat is developed elsewhere in the machine. The temperature of the heater can be controlled and responds quickly to a change of the controlling switch.

It will operate with from one third to one sixth of the amount of current required for any other form of heater it is possible to design.

Any gas or steam heated head can be easily arranged to receive the heaters in any machine shop, and usually in the establishment in which they are used. No switchboard is required. We guarantee far higher efficiency than any other heater under all conditions, the simplest possible construction, perfectly uniform heating of the surface, the most sensitive control and the shortest time for heating at the start.

Detailed information will be promptly furnished if you will send sketch and size of face of head.

Flask Heaters.

For laboratory use we show a convenient, ring top, electric flask heater. It is substantially made of copper, fitted with heater with controlling switch, and is intended for the many operations where a gentle or moderate constant supply of heat is required.

The over-all diameter is eight and one-half inches, and it stands four inches high.



No. 1430.

No. 1430. Flask heater. Three heats. Cord, controlling switch; no plug; 500 watts..... Price. $12.00

Grease Paint Heater.

A heater for grease paint; two trays, complete with snap action switch; made to fasten against the wall; they are mounted on slate, are nickel plated, strong, and well finished.

No. 1284. Grease paint heater, 20 watts .....price, $3.50

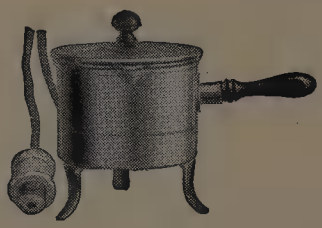
Hot Closet Heaters

(see Warmers, plate, and Radiators).

HEATERS (Continued).



Water Heater.



No. 1240.



G. E. Water Heaters.

Laundry Roll Heaters.

Prices on electric heaters for equipment of laundry rolls furnished on application.

Water Heaters

(See "Coil Heaters" above, and Urns, Boilers, Tea Kettles, Stoves, Sterilizers, etc.).

Simplex "Indispensable Water Heater."

Made in two sizes, finished in polished nickel, without seams. Sanitary, conveniently light and portable, and quick in action. The quart size will boil a cup of water in two minutes and the pint size in three minutes. It costs three mills or less to boil a pint of water. Complete with six feet of special cord and lamp socket plug.

		Price.
No. 1240.	Capacity, 1 pint....400 watts....	$5.00
,, 1241.	,, 1 quart...550 ,, ...	6.50

G. E. Combination Quart Water Heater and Egg Boiler.

No. 42656...	300 watts,	95–105 volts..	each,	$10.00
,, 42657...	300 ,,	106–115 ,, ..	,,	10.00
,, 42658...	300 ,,	116–125 ,, ..	,,	10.00
,, 43269...	300 ,,	200–225 ,, ..	,,	10.00
,, 43270...	300 ,,	226–250 ,, ..	,,	10.00
,, 42659...	500 ,,	95–105 ,, ..	,,	10.00
,, 42660...	500 ,,	106–115 ,, ..	,,	10.00
,, 39519...	500 ,,	116–125 ,, ..	,,	10.00
,, 42386...	500 ,,	200–225 ,, ..	,,	10.00
,, 42387...	500 ,,	226–250 ,, ..	,,	10.00

G. E. Combination Water Heaters, Four-Quart.

No.		Watts.	Volts.	Each.
45299...	3 heat...	300–575–1050..	95–105..	$21.50
45300...	3 ,, ..	300–575–1050..	106–115..	21.50
45301...	3 ,, ..	300–575–1050..	116–125..	21.50
45302...	3 ,, ..	300–575–1050..	200–225..	21.50
45303...	3 ,, ..	300–575–1050..	226–250..	21.50

Six-Quart.

No.		Watts.	Volts.	Each.
45304...	3 heat...	350–675–1300..	95–105..	$29.50
45305...	3 ,, ..	350–675–1300..	106–115..	29.50
45306...	3 ,, ..	350–675–1300..	116–125..	29.50
45307...	3 ,, ..	350–675–1300..	200–225..	29.50
45308...	3 ,, ..	350–675–1300..	226–250..	29.50

HEATER Switches (see S).

HENDERSON'S Boring Machine (see Machine, also Tools).

HICKEYS (see Joints, insulating).

HIGH Voltage Hooded Fixture (see Fixtures, pole and wall).

HIGH Voltage Rope Insulator (see Insulator, rope).

HOIST (see Crane or Lift).

HOLDERS (see Adjusters).

HOLDERS, see following headings:

Holders, Lamp (see Lamps, portable).
,, Shade.
,, Speaking Tube (see Tube).
,, Telephone (see Brackets, telephone).
,, Track Brush.
,, White's Adjustable, (see Fixtures, adjustable).
,, Wire.

HOLDERS, Lamp (see Lamps, portable).



No. 9843.



No. 12732.



No. 71737.



No. 9515.



J. E. M. Shade Holder.



No. 5339.



No. 5528.



No. 5368.



No. 1264.

HOLDERS, Shade (see Collars, ceiling, etc.).

Acme Shade Holders.

These holders fit regular brass electric sockets.

No. 9843. 2¼ in. pol. brass or rich gilt, per gross, $5.00
Old brass ,, 5.50
Ox. copper ,, 6.00
Pol. nickel ,, 5.70
Dead black ,, 7.00
Acid bronze ,, 7.00
No. 9993. 3¼ in. pol. brass or rich gilt, ,, 9.40
Ox. copper ,, 11.00
Old brass ,, 10.40
No. 16786. 4 in. pol. brass or rich gilt, ,, 15.00
Old brass ,, 16.00

Acme Shade Holders for W. P. Sockets.

These holders have a larger clamping ring to fit in the groove of porcelain weatherproof sockets.

No. 12732. 2¼ in. pol. brass or rich gilt, per gross, $6.20
No. 13372. 3¼ in. pol. brass or rich gilt, per gross, 16.00

G. E. Shade Holders for W. P. Sockets.

No. 71737. 2¼ in. pol. brass ..... per doz., $ 1.50
,, 9515. 2¼ ,, for flush pocket receptacle, per doz., 1.80

J. E. M. Shade Holders.

No. 1 ..... 1⅝ inch brass ..... per gross, $5.70
,, 2 ..... 2¼ ,, ,, ... ,, 5.20
,, 3 ..... 3¼ ,, ,, ... ,, 9.20

Hubbell Shade Holders.

Made in two parts, consisting of a split screw collar and holder. Can be attached to any standard socket without tools and is as firmly held as if it were part of the shell itself.

List No.	Std. Pkg.	Pkg. Wt.	Price. Gross.
5339. 2¼ in. shade holder	5	38 lbs.	$9.00
5340. 3¼ ,, ,, ,, ,, ...	1	12 ,,	18.00
5528. 2¼ ,, locking spring shade holder	5	40 ,,	12.50

Add to list for special finishes, 2¼ in., per gr., $2.50
" " " " " " 3¼ " " " 5.00

Hubbell Cluster Shade Holder.

This shade holder is of heavy gauge metal and fits the regular 3¼-inch flat porcelain shade. It is made for ⅝-inch stem and ¾-inch covering tube.

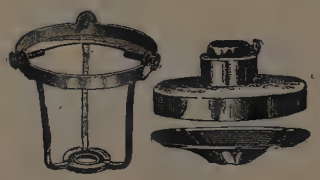
	Std. Pkg.	Pkg. Wt.	Price.
No. 5368. 3¼ in., for ⅝ in. stem, pol. brass	5	3 lbs.	$ .16
No. 5369. 3¼ in., for ¾ in. stem, pol. brass	5	3 ,,	.16

Special finishes to order.

Victor Shade Holders.

These holders fit regular brass electric sockets.

No. 1264. 2¼ in., pol. brass, rich gilt, or old brass .... per gross, $7.00
Polished nickel ..... ,, 8.50
No. 1265. 3¼ in., pol. brass, rich gilt, or old brass .... ,, 12.00
Polished nickel ..... ,, 13.50
No. 1725. 4 in., pol. brass, rich gilt, or old brass .... ,, 16.00



No. 1293. No. 429.



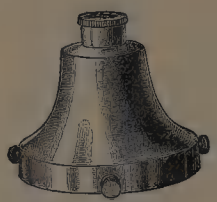
No. 3013. No. 427.



No. 428.



No. 440.



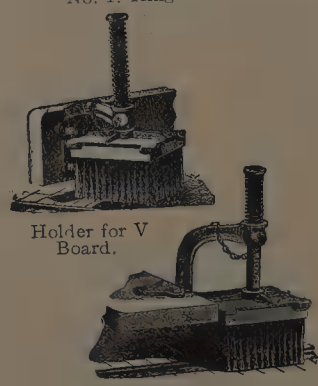
No. 3330.



No. 50.



No. 1. Ring Holder.



Holder for V Board.

Holder for Flat Board.

HOLDERS, Shade (continued).

High Shade Holders.

These holders are held between the socket and the bracket pipe, relieving the socket of all strain due to weight of shade.

No. 1293. 2¼ in., pol. brass, rich gilt, or old brass, per gross, $10.00

No. 1294. 3¼ in., pol. brass, rich gilt, or old brass, per gross, 12.00

No. 1295. 4 in., pol. brass, rich gilt, or old brass, ,, 18.00

Dale Shade Holders.

For holding porcelain shades, etc., over clusters of lamps. To slip ½-, ⅝-, ¾- or 1-inch brass tube. State size in ordering.

No. 428.....3¼-in. holder, pol. brass.....per doz., $1.80

,, 429.....3¼ ,, ,, ,, ,, ... ,, 1.80

,, 427.....1⅝ ,, cluster holder, pol. brass...per 100, 7.00

Canopy Shade Holder.

For attaching extra shade to bottom of fixture.

No. 440..... 4-in. pol. or old brass.....each, $ .70

For hickey to be used in applying this shade holder to any fixture see "Electric fittings" (under Fixtures, electric and gas).

Socket Shade Holder.

No. 3013P. Socket holder, pol. brass.....per 100, $40.00

Weatherproof Shade Holders.

No. 3330. 3¼ in. to take ⅜-in. iron pipe thread, pol. brass, per 100, $50.00

No. 442C. 4-in. to take ⅜-in. iron pipe thread, sheet copper, bright dip finish.....per 100, 80.00

Gas Shade Holders.

No. 50. 4-in., pol. brass or rich gilt.....per gross, $7.00

Old brass..... ,, 8.00

No. 50. 5-in., pol. brass or rich gilt..... ,, 9.00

Old brass..... ,, 10.00

Ring Shade Holders.

No. 1. 10-in., pol. brass tripod shade holder....per gross, $60.00

Jap. and old brass..... ,, 60.00

Acid bronze and ox. copper..... ,, 72.00

Verde antique..... ,, 72.00

No. 2. 12-in. pol. brass tripod shade holders... ,, 72.00

Jap. and old brass..... ,, 84.00

Acid bronze and ox. copper..... ,, 90.00

Verde antique..... ,, 108.00

HOLDERS, Speaking Tube (see Tube).

HOLDERS, Telephone (see Brackets, telephone).

HOLDERS, Track Brush.

Adjustable Track Brush Holder
(see Brooms).

Simple in design. No bolts, set screws, or nuts in the adjusting parts. If cotter pin becomes broken broom is lifted by spring out of the way. Pipe standard is of sufficient length to allow for all wear of broom wires. Give style and state size of broom used in ordering.

No. 1821. Holder for V-shaped and upright guard boards, per set of 4, $13.50

No. 1822. Holder for flat guard boards.... ,, 13.50

,, 8044. Top plate for No. 160 track broom, ,, 1.65

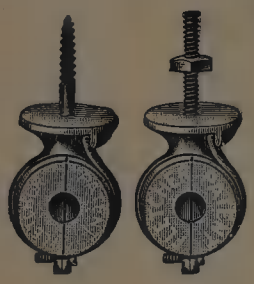
,, 8045. ,, ,, ,, ,, 162 ,, ,, ,, 2.64

,, 8046. ,, ,, ,, ,, 163 ,, ,, ,, 1.65

,, 8047. ,, ,, ,, Nos. 161, 165, 164 track broom, per set of 4, 1.76

Prices on holders do not include top plates or brooms, which must be ordered separately.

See "Brooms, track," for above numbers.



No. 1303. No. 2367.

HOLDERS, White's Adjustable (see Fixtures, adjustable).

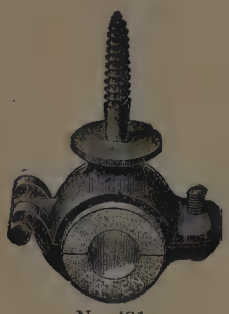
HOLDERS, Wire (see Clamps).

Fletcher's Gem Wire Holders.

With Wood Screw.

With Porcelain Insulations.			*With Opalescent Glass.*		
No.	Op.	Price.	No.	Op.	Price.
1303	3/16	$ .12	1317	1 3/8	$ .31
1304	1/4	.12	1318	1 1/2	.31
1305	3/8	.16	1319	1 5/8	.48
1306	1/2	.16	1320	1 3/4	.48
1308	5/8	.20	1321	1 7/8	.48
1310	3/4	.20	1322	2	.48
1312	7/8	.20	1323	2 1/8	.60
1314	1	.20	1324	2 1/4	.60
1315	1 1/8	.31	1325	2 3/8	.60
1316	1 1/4	.31	1326	2 1/2	.60

With Opalescent Glass.		
No.	Op.	Price.
1330	1/2	$ .15
1332	5/8	.18
1334	3/4	.21
1336	7/8	.21
1338	1	.21
1339	1 1/8	.21
1340	1 1/4	.38
1341	1 3/8	.38
1342	1 1/2	.38
1344	1 3/4	.57
1346	2	.57

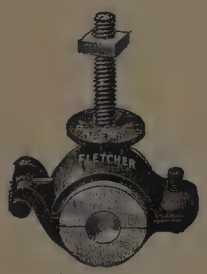


No. 481.

With Bolt.

With Porcelain Insulations.			*With Opalescent Glass.*		
2367	3/16	$ .12	2381	1 3/8	$ .31
2368	1/4	.12	2382	1 1/2	.31
2369	3/8	.16	2383	1 5/8	.48
2370	1/2	.16	2384	1 3/4	.48
2372	5/8	.20	2385	1 7/8	.48
2374	3/4	.20	2386	2	.48
2376	7/8	.20	2410	2 1/8	.60
2378	1	.20	2411	2 1/4	.60
2379	1 1/8	.31	2412	2 3/8	.60
2380	1 1/4	.31	2413	2 1/2	.60

With Opalescent Glass.		
2388	1/2	$ .15
2390	5/8	.18
2392	3/4	.21
2394	7/8	.21
2396	1	.21
2397	1 1/8	.21
2398	1 1/4	.38
2399	1 3/8	.38
2400	1 1/2	.38
2402	1 3/4	.57
2404	2	.57

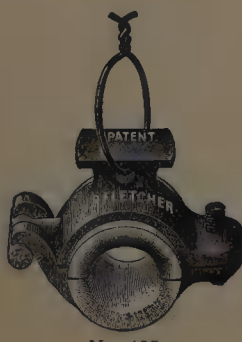


No. 2355.

With Wood Screw.

With Porcelain Insulations.			*With Opalescent Glass.*		
481	3/16	$ .12	426 1/2	1 3/8	$ .31
482	1/4	.12	427	1 1/2	.31
483	3/8	.16	427 1/2	1 5/8	.48
421	1/2	.16	428	1 3/4	.48
422	5/8	.20	428 1/2	1 7/8	.48
423	3/4	.20	429	2	.48
424	7/8	.20	430	2 1/8	.60
425	1	.20	431	2 1/4	.60
425 1/2	1 1/8	.31	432	2 3/8	.60
426	1 1/4	.31	433	2 1/2	.60

With Opalescent Glass.		
487	1/2	$ .15
488	5/8	.18
489	3/4	.21
490	7/8	.21
491	1	.21
492 1/2	1 1/8	.21
493	1 1/4	.38
493 1/2	1 3/8	.38
494	1 1/2	.38
484	1 3/4	.57
485	2	.57



No. 495.

With Bolt.

With Porcelain Insulations.			*With Opalescent Glass.*		
2355	3/16	$ .12	2363 1/2	1 3/8	$ .31
2356	1/4	.12	2364	1 1/2	.31
2357	3/8	.16	2364 1/2	1 5/8	.48
2358	1/2	.16	2365	1 3/4	.48
2359	5/8	.20	2365 1/2	1 7/8	.48
2360	3/4	.20	2366	2	.48
2361	7/8	.20	2350	2 1/8	.60
2362	1	.20	2351	2 1/4	.60
2362 1/2	1 1/8	.31	2352	2 3/8	.60
2363	1 1/4	.31	2353	2 1/2	.60

With Opalescent Glass.		
2858	1/2	$ .15
2859	5/8	.18
2860	3/4	.21
2861	7/8	.21
2862	1	.21
2862 1/2	1 1/8	.21
2863	1 1/4	.38
2863 1/2	1 3/8	.38
2864	1 1/2	.38
2865	1 3/4	.57
2866	2	.57

Fletcher's "Tree" Wire Holders.

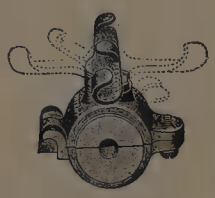
No. 495	5/8	-inch opening	$ .25
,, 496	3/4	,, ,,	.25
,, 497	7/8	,, ,,	.25
,, 492	1	,, ,,	.25
,, 498	1 1/8	,, ,,	.25

Fletcher's Jumbo Tree Wire Holder.

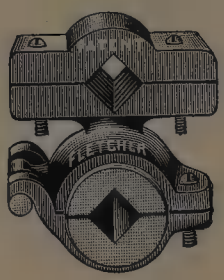
No. 457	5/8	-inch opening	$ .40
,, 458	3/4	,, ,,	.40
,, 459	7/8	,, ,,	.40
,, 460	1	,, ,,	.40



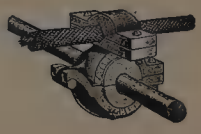
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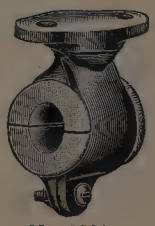
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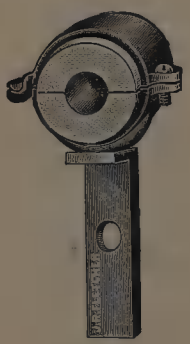
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No. 601.



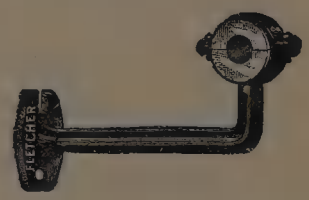
No. 2031.



No. 1101.



No. 2931.



No. 2921.





No. 705.

HOLDERS, Wire (Continued).

Fletcher's Gem Wire Holder.

With Porcelain Insulations. Opening.		*With Glass Insulations.* Opening.	
No. 521. $\frac{1}{2}$-in.	$ .30	No. 641. $\frac{1}{2}$-in.	$ .28
,, 522. $\frac{5}{8}$,,	.30	,, 642. $\frac{5}{8}$,,	.33
,, 523. $\frac{3}{4}$,,	.30	,, 643. $\frac{3}{4}$,,	.33
,, 524. $\frac{7}{8}$,,	.30	,, 644. $\frac{7}{8}$,,	.38
,, 525. 1 ,,	.30	,, 645. 1 ,,	.38
,, 526. $1\frac{1}{8}$,,	.30		

Fletcher's Feed-Wire Insulator.

Opening.		Opening.	
No. 461. $\frac{3}{16}$-in.	$ .15	No. 601. $\frac{3}{16}$-in.	$ .15
,, 462. $\frac{1}{4}$,,	.15	,, 602. $\frac{1}{4}$,,	.15
,, 463. $\frac{3}{8}$,,	.15	,, 603. $\frac{3}{8}$,,	.15

Fletcher's Universal Wire Holders.

With Porcelain Insulations. No.	Op.	List.	No.	Op.	List.	*With Op'l't Glass.* No.	Op.	List.
2031.	$\frac{3}{16}$	$ .10	2041.	$1\frac{3}{8}$	$ .30	2083.	$\frac{1}{2}$	$ .14
2032.	$\frac{1}{4}$	.10	2042.	$1\frac{1}{2}$	.30	2084.	$\frac{5}{8}$	.17
2033.	$\frac{3}{8}$	.14	2043.	$1\frac{5}{8}$	.45	2085.	$\frac{3}{4}$	.20
2034.	$\frac{1}{2}$	.14	2044.	$1\frac{3}{4}$	.45	2086.	$\frac{7}{8}$	.20
2035.	$\frac{5}{8}$	.18	2045.	$1\frac{7}{8}$	.45	2087.	1	.20
2036.	$\frac{3}{4}$	.18	2046.	2	.45	2088.	$1\frac{1}{8}$	.20
2037.	$\frac{7}{8}$	.18	2047.	$2\frac{1}{8}$	.57	2089.	$1\frac{1}{4}$	.36
2038.	1	.18	2048.	$2\frac{1}{4}$	.57	2090.	$1\frac{3}{8}$	.36
2039.	$1\frac{1}{8}$	.30	2049.	$2\frac{3}{8}$	.57	2091.	$1\frac{1}{2}$	.36
2040.	$1\frac{1}{4}$	.30	2050.	$2\frac{1}{2}$	.57	2092.	$1\frac{3}{4}$	.55
						2093.	2	.55

Fletcher's Switchboard Wire Holders.

With Porcelain Insulations.

No.	Size	Op.	Price.	No.	Size	Op.	Price.
1101	$\frac{3}{16}$	in.	$ .12	1111	$1\frac{3}{8}$	in.	$ .31
1102	$\frac{1}{4}$	,,	.12	1112	$1\frac{1}{2}$	,,	.31
1103	$\frac{3}{8}$	,,	.16	$1112\frac{1}{2}$	$1\frac{5}{8}$	,,	.31
1104	$\frac{1}{2}$	,,	.16	1113	$1\frac{3}{4}$	,,	.48
1105	$\frac{5}{8}$	,,	.20	$1113\frac{1}{2}$	$1\frac{7}{8}$	,,	.48
1106	$\frac{3}{4}$	,,	.20	1114	2	,,	.48
1107	$\frac{7}{8}$	,,	.20	1115	$2\frac{1}{8}$	,,	.60
1108	1	,,	.20	1116	$2\frac{1}{4}$	,,	.60
1109	$1\frac{1}{8}$	,,	.31	1117	$2\frac{3}{8}$	,,	.60
1110	$1\frac{1}{4}$	,,	.31	1118	$2\frac{1}{2}$	,,	.60

With Opalescent Glass Insulations.

No.	Size	Op.	Price.	No.	Size	Op.	Price.
1121	$\frac{1}{2}$	in.	$ .15	1127	$1\frac{1}{4}$	in.	$ .38
1122	$\frac{5}{8}$	,,	.18	1128	$1\frac{3}{8}$	,,	.38
1123	$\frac{3}{4}$	,,	.21	1129	$1\frac{1}{2}$	,,	.38
1124	$\frac{7}{8}$	,,	.21	1130	$1\frac{3}{4}$	,,	.57
1125	1	,,	.21	1131	2	,,	.57
1126	$1\frac{1}{8}$	,,	.21				

Fletcher's Insulated Iron Pins and Brackets.

With Glass Insulations.

No.	Op.	Price.	No.	Op.	Price.
2931	$\frac{1}{4}$-in.	$ .30	2921	$\frac{1}{4}$-in.	$ .50
2932	$\frac{3}{8}$,,	.30	2922	$\frac{3}{8}$,,	.50
2933	$\frac{1}{2}$,,	.30	2923	$\frac{1}{2}$,,	.50
2934	$\frac{5}{8}$,,	.30	2924	$\frac{5}{8}$,,	.50
2935	$\frac{3}{4}$,,	.30	2925	$\frac{3}{4}$,,	.50

Fletcher's Feed-Wire Clamps (see also Insulators, feed-wire).

To Clamp 1¼ inch Pipe (1.66 inch Outside Diameter).

With Porcelain Insulations. No.	Op.	List.	No.	Op.	*With Opalescent Glass.* List.
705	$\frac{5}{8}$-in.	$ .40	713	$\frac{5}{8}$-in.	$ .42
706	$\frac{3}{4}$,,	.40	714	$\frac{3}{4}$,,	.42
707	$\frac{7}{8}$,,	.40	715	$\frac{7}{8}$,,	.42
708	1 ,,	.40	716	1 ,,	.42
709	$1\frac{1}{8}$,,	.40	717	$1\frac{1}{8}$,,	.42

(*Continued on next page.*)



Cutter's Arc Hood.



Cutter's Midget Cut-Out Hood.



Cutter's Midget Arc Hood.





Cutter's Standard Poletop.

HOLDERS, Wire.

Fletcher's Feed-Wire Clamps (Continued).

To Clamp 1¼-inch Pipe (1.90 in. Outside Diameter).

No.	Op.	List.	No.	Op.	List.
With Porcelain Insulations.			*With Opalescent Glass.*		
725	⅝-in.	$ .40	733	⅝-in.	$ .42
726	¾ ,,	.40	734	¾ ,,	.42
727	⅞ ,,	.40	735	⅞ ,,	.42
728	1 ,,	.40	736	1 ,,	.42
729	1⅛ ,,	.40	737	1⅛ ,,	.42

To Clamp 2-inch Pipe (2.375 in. Outside Diameter).

No.	Op.	List.	No.	Op.	List.
With Porcelain Insulations.			*With Opalescent Glass.*		
745	⅝-in.	$ .40	753	⅝-in.	$ .42
746	¾ ,,	.40	754	¾ ,,	.42
747	⅞ ,,	.40	755	⅞ ,,	.42
748	1 ,,	.40	756	1 ,,	.42
749	1⅛ ,,	.40	757	1⅛ ,,	.42

HOLOPHANE, Shades (see Shades).

HOODED Fixture (see Fixtures, pole and wall).

HOOD Insulators (see I).

HOODS, see following headings :

Hoods, Arc Lamp.
,, Incandescent.

HOODS, Arc Lamp (see Fixtures, street, and Shades).

Cutter's Arc Hood.

Of heavy galvanized iron, the hood proper made separable so as to be nested for shipment. The cross arm has metal bound ends and is coated with baked enamel.

No. S-1487. With absolute cut-out board, net, $3.00
No. S-1488. With plain hanger board, ,, 2.40
,, S-1489. With simple hook ,, 2.00

Cutter's Midget Cut-Out Hood.

A smaller hood for use with enclosed arc lamps. Has absolute cut-out switch mounted up in hood.

No. S-1490. Complete net, $2.25
,, S-1491. Same with high voltage insulator net, 2.70

Cutter's Midget Arc Hood.

A compact galvanized hood for use with enclosed arc lamps. Black outside, bright inside, with an inner insulated hook.

No. S-1492. Complete net, $1.25
,, S-1493. Same with high voltage insulator net, 1.70

Cutter's Standard Poletop.

Uprights of ¾-inch bore iron pipe. Top casting provided with sockets for insulator pins. Hood and hanger board same as Cutter's arc hood above.

No. S-1494. Complete with hood and absolute cut-out board, net, $4.60
No. S-1495. Same with hood and plain hanger board net, 4.00
No. S-1496. Same with hood and simple hook net, 3.60

Cutter's Shadowless Poletop.

Has no base projecting on each side of pole so as to cast shadow, and does not require pole to be

(*Continued on next page.*)



Cutter's Shadowless Poletop.



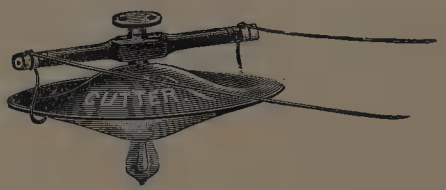
Cutter's Enclosed Arc Poletop.



Cutter's Reflector Poletop.



Cutter's Clamp Poletop.



Cutter's Doorway Hood.



Cutter's Always Level Streethood.

HOODS, Arc Lamp.

Cutter's Shadowless Poletop
(Continued).

shaved down to fit a certain size of cap. Supporting plate curved to fit ordinary poles, hood same as above.

No. S-1497. Complete with absolute cut-out board.....net, $4.60
No. S-1498. Same with hood and plain hanger board.....net, 4.00
No. S-1499. Same with hood and simple hook.....net, 3.60

Cutter's Enclosed Arc Poletop.

A shadowless poletop with a small hood for use with enclosed arc lamps.

No. S-1500. Complete with small absolute cut-out board....net, $4.25
No. S-1501. Same with simple insulating hook.....net, 3.25

Cutter's Reflector Poletop

Has an extra wide spread of pipes, allowing reflectors to be used over the globes, and an arched top supporting a Cutter's high voltage insulator.

No. S-1502. Complete.....net, $3.25
No. S-1503. Same with pair of insulator reflector clamps.....net, 3.65

Cutter's Clamp Poletop.

Same as the reflector poletop but with clamps for an *iron* pole.

S-1504. Complete for 4-in. bore pipe..net, $3.75
S-1505. Same with pair of insulated reflector clamps.....net, 4.15
S-1506. Complete for 5-in. bore pipe..net, 3.80
S-1507. Same with pair of insulated reflector clamps.....net, 4.20
S-1508. Complete for 2½-in. bore pipe, net, 3.70
S-1509. Same with pair of insulated reflector clamps.....net, 4.10

HOODS, Incandescent (see Fixtures, street).

Cutter's Doorway Hood.

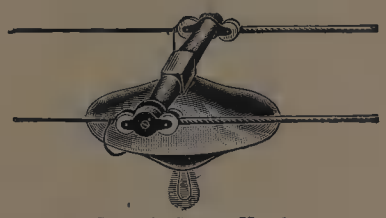
With cross arm and flange for use in doorways, on bridges, etc.

No. S-1510. With Ed. base socket...net, $1.20
,, S-1511. Without socket or nozzle, ,, .95

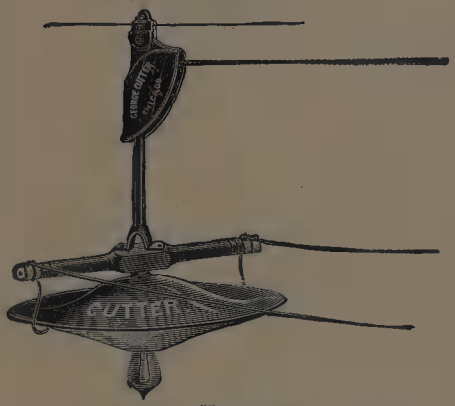
Cutter's "Always Level" Streethood.

The only suspension streethood that will stay level in windy weather. The two wires leading to the hood make up one side of the suspension, while cords passing over covered pulleys form the other side so that the hood is supported from four points. The pulleys are mounted on a wrought-iron bracket, while a wrought-iron brace arm is used at the other pole. Then an adjusting clamp is placed at the end of each cord, so that these cords can be independently drawn up taut and then locked together. Shipped complete with porcelain shell socket, spreader-tip arm, iron brace arm, iron pulley arm and pair of adjusting clamps.

No. S-1512. With Edison socket ...net, $3.00
,, S-1513. Without socket..... ,, 2.75



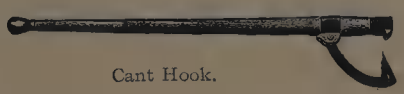
Cutter's Centre Hood.



Cutter's Swinging Hood with Petite Pulley.



Cutter's Looped Hood.



Cant Hook.



Carrying Hook.

HOODS, Incandescent (Continued).

Cutter's Centre Hood.

With spreader-tip arm (centre part of Cutter's Always Level Streethood).

No. S-1514. With Ed. base socket . . . net, $1.40
,, S-1515. With series nozzle . . . . . ,, 1.25
,, S-1516. Without socket or nozzle, ,, 1.15

Cutter's Swinging Hood

Is fitted direct to the knob of a Cutter's Petite (lamp supporting) pulley, and furnished complete with cross arm and Cutter's streethood socket.

No. S-1517. With Petite pulley and Ed. socket . . . . . net, $1.70
No. S-1518. With Petite pulley without socket or nozzle . . . . . net, 1.45

Cutter's Looped Hood.

A similar suspension hood with enameled cross arm and porcelain shell socket.

No. S-1519. With Ed. base socket $1.20
,, S-1520. Without socket or nozzle 95
,, S-1521. Same but fitted with 3 Ed. base sockets 1.70
No. S-1522. 5-light looped hood with Ed. sockets 2.20

HOOKS, see following headings:

Hooks, Cant.
,, Carrying.
,, Ceiling.
,, Chandelier.
,, Rubber.
,, Safety (see Irons, guard).
,, Socket.
,, Speaking Tube (see Tube).
,, Telephone (see Telephone).

HOOKS, Cant (see Peavey).

Klein's Cant Hooks.

No. 399. 4½-ft. hickory handle, shipping wt., 8 lbs. . . . . each, $2.50
No. 399A. Extra handles, shipping wt., 4 lbs. . . . . each, .70

Dicke's Cant Hooks.

No. 196. . . . . 4½-foot. . . . . each, $2.25

Little Giant Cant Hooks.

With selected hickory handles, chisel-shaped hooks.

No. 232. . . . 2½-in. x 4½- or 5-ft. handles, per doz., $23.25
No. 233. . . . 2¾ ,, x 4½ ,, 5 ,, ,, ,, 26.25
,, 234. . . . 3 ,, x 4½ ,, 5 ,, ,, ,, 29.50

The Columbus Cant Hook.

Malleable iron clasp with extension toe ring with either round or duck-bill hook. Selected hickory handles. Per doz.

No. 246. . . . 2½-in. x 4, 4½, 5, 5½-ft. handles, $25.00
,, 247. . . . 2¾ ,, x 4, 4½, 5, 5½ ,, ,, 28.25
,, 248. . . . 3 ,, x 4, 4½, 5, 5½ ,, ,, 31.25

HOOKS, Carrying.

Klein's Carrying Hooks, Swivel.

		Each.
No. 405. . . .	4-ft. handle, ship. wt., 8 lbs.,	$3.00
,, 406. . . .	5 ,, ,, ,, ,, 11 ,,	4.00
,, 407. . . .	6 ,, ,, ,, ,, 16 ,,	4.50
,, 408. . . .	7 ,, ,, ,, ,, 20 ,,	5.00

Dicke's Carrying Hooks, Plain.

No. 194A. All steel, 5 feet . . . . . each, $4.50
,, 194B. ,, ,, 6 ,, ... ,, 5.50
,, 194C. ,, ,, 7 ,, ... ,, 6.50



Cutter's Ceiling Hook.



Cutter's Spreader Hook.



Macallen's Chandelier Hook and Eye.



Rubber Hook.



Socket Hook.

HOOKS, Carrying (Continued).

Dicke's Carrying Hooks, Swivel.

No. 194....4-foot, with swivel.....each, $3.00
,, 194....5 ,, ,, ,, ... ,, 4.45
,, 194....6 ,, ,, ,, ... ,, 5.30
,, 194....7 ,, ,, ,, ... ,, 6.00

Columbus Carrying Hooks.

The clip on No. 272 is bolted to the handle so that bolts may be tightened in case of shrinkage, and the hooks are on swivels. The hooks on No. 273 are also hung on swivels, but the clamp is of different form.

No. 272. Hickory or rock maple handles ...doz. $35.00
,, 273. ,, ,, ,, ,, ,, ... " 35.00

HOOKS, Ceiling (see Pendants, ceiling, Hangers, lamp, Brackets, etc.).

Cutter's Ceiling Hook.

For indoor arc lamps and fan motors. Malleable iron and porcelain, strongly made.

No. S-1523. Cutter's ceiling hooks ...net, each, $ .25

Cutter's Spreader Hook.

A compact ceiling insulator with self-binding knobs for guiding the line wires. Malleable iron, porcelain insulation.

No. S-1524. Cutter's spreader hook...net, each, $ .35

HOOKS, Chandelier.

Insulated Chandelier Hooks and Eyes, Macallen.

Hooks.

No. 1391....$\frac{3}{8}$ pipe size.....each, $ .50
,, 1392....$\frac{1}{2}$,, ,, ... ,, .66$\frac{2}{3}$

Eyes.

No. 1395....$\frac{3}{8}$ pipe size.....each, $ .50
,, 1396....$\frac{1}{2}$,, ,, ... ,, .66$\frac{2}{3}$

For suspending electric fans, etc.

HOOKS, Rubber.

Rubber Telephone Hooks.

Threaded hard rubber composition and galvanized hook.

No. S-1525. Rubber hook.....per 100, $12.00

HOOKS, safety (see Irons, guard).

HOOKS, Socket.

Socket Hooks.

For screwing into regular sockets with standard $\frac{1}{8}$-in. tap.

No. S-1526. Socket hook.....per 100, $10.00

HOOKS, Speaking Tube (see Tube).

HOOKS, Telephone (see Telephones).

HOSE, Cotton.

Cotton Car Cable Hose.

For use in car wiring where a number of wires run parallel for some distance.

	Diam.	Laid Flat.	Approx. Wts. per 100 ft.	Price per 100 ft.
No. S-1527	$\frac{3}{4}$ in.	$1\frac{1}{4}$ in.	$3\frac{1}{2}$ lbs.	$4.50
,, S-1528	1 ,,	$1\frac{5}{8}$,,	5 ,,	4.90
,, S-1529	$1\frac{1}{4}$,,	$2\frac{1}{8}$,,	6 ,,	5.20
,, S-1530	$1\frac{1}{2}$,,	$2\frac{1}{2}$,,	7 ,,	5.50
,, S-1531	$1\frac{3}{4}$,,	3 ,,	8 ,,	6.50
,, S-1532	2 ,,	$3\frac{1}{4}$,,	$8\frac{1}{2}$,,	7.20
,, S-1533	$2\frac{1}{4}$,,	$3\frac{1}{2}$,,	11 ,,	8.50
,, S-1534	$2\frac{1}{2}$,,	$3\frac{5}{8}$,,	$12\frac{1}{2}$,,	9.40
,, S-1535	$2\frac{3}{4}$,,	$4\frac{1}{2}$,,	13 ,,	10.50
,, S-1536	3 ,,	$4\frac{5}{8}$,,	14 ,,	11.00
,, S-1537	$3\frac{1}{4}$,,		$14\frac{1}{2}$,,	12.00
,, S-1538	$3\frac{1}{2}$,,	$5\frac{1}{2}$ in.	$17\frac{1}{2}$,,	13.50
,, S-1539	$3\frac{3}{4}$,,		18 ,,	14.50
,, S-1540	4 ,,	$6\frac{1}{4}$ in.	19 ,,	16.50



F. Q. M. Brand Gas Hose.

HOSE, Gas.

Diamond Braid Drop Light and Stove Tubing.

F. Q. M. Brand, rubber centre, extra heavy quality, fully guaranteed for one year from date of sale. May be used for either drop light or stoves.

No. 1. Silkoline covered, rubber centre....per ft., $ .13
,, 2. Mohair covered, rubber centre..... ,, .11

Drop Light Tubing.

No. 3. Silkoline covered, extra heavy double dipped.....per ft., $ .11
No. 4. Mohair covered, extra heavy double dipped.....per ft., .08

Stove Tubing.

No. 5. ⅜-in., mohair, double dipped.....per ft., $ .09
,, 6. ⅜ ,, cotton covered, double dipped, ,, .08

Ends for Tubing.

Furnished with 6 inches of spiral wire coil for use with rubber centre tubing.

No. 9. Patent ends, rubber compound, for stove tubing.....per doz., $1.00
No. 10. Metal ends, for portable tubing. ,, 1.00

Rubber tubing will be furnished cut in lengths as ordered, with ends attached at an additional charge of 9 cents, net, per length.

HOWE'S Improved Wire Tightener (see Vises).

HUMS, Anti- (see A).



No. 186.



No. 187.



No. 190.

HUSKS (see Lights, ceiling).

Cast Brass Husks

(without plate).

No. 186. Size 2 x 2⅜ in., rich gilt.....each, $ .45
Ox. copper..... ,, .50
No. 187. Size 2½ x 3½ in., rich gilt..... ,, .50
Ox. copper..... ,, .55
No. 190. Size 2¼ x 4 in., rich gilt..... ,, .50
Ox. copper..... ,, .55



No. 286.



No. 287.



No. 04757.

Stamped Brass Husks.

No. 286. Size 2 x 2 inches.....each, $ .12
,, 287. ,, 3½ x 2½ ,, ... ,, .30
,, 04757. ,, 2½ x 4 ,, ... ,, .30

HYDROMETERS.

Battery Hydrometers.

Suitable for testing storage battery electrolyte with specific gravity scale.

No. S-1541. Battery hydrometers.....each, $1.00

Gasoline Hydrometers.

Complete with glass tube in wooden box.

No. S-1542. Scale 60 to 80.....each, $ .50



Hydrometer.

ICE Chest Switch (see S).

IGNITERS (see Dynamos, blasting).

Wizard Igniters

For marine and stationary engines.

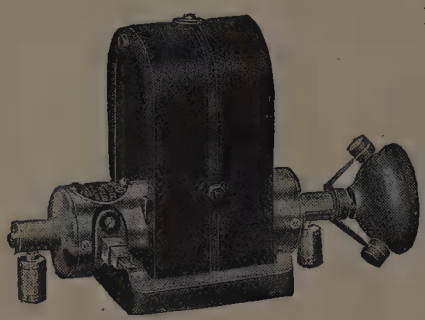
These igniters are permanent field dynamos generating direct current from the moment the armature turns over, thus enabling one to start his engine without batteries if the engine can be turned by hand.

They have laminated armatures, massive commutators, insulated by India mica of the best grade, steel shafts, journals ⅜ x 1½ inches, bearings of bronze, wick oilers, and phosphor bronze gauze brushes.

The armatures are thoroughly enclosed in a non-magnetic waterproof brass tube excluding dust and water and making them especially valuable for launch and dory work. Machines have been submerged entirely, and after bailing out water have been able to start at once. Equipped with patent friction drive, straight friction, round or flat belt drive as ordered.

IGNITERS.

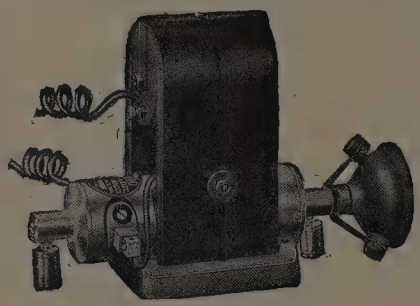
Wizard Igniters (Continued).



Type B Igniter.

Type B.

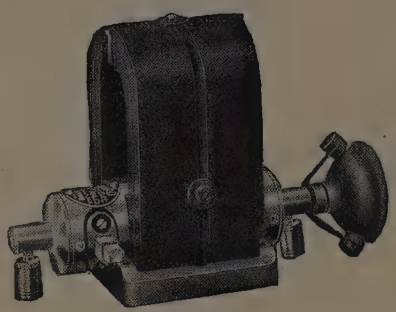
Wipe or contact spark for one cylinder engine.
Length, 10½ inches. Two magnets, 1½ x ½ inches.
Height, 7 inches.
Weight, 12 lbs.
Voltage, 25 volts at 2,400 revolutions.
Current, 4 amperes.
Type B igniter.....each, $10.00



Type BC Igniter.

Type BC.

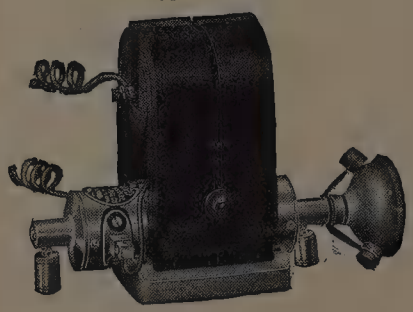
Wipe or contact spark for one cylinder engine.
Spark coil attached to igniter itself.
Length, 10½ inches. Two magnets, 1½ x ½ inches.
Height, 7 inches.
Weight, 13 lbs.
Voltage, 25 volts at 2,400 revolutions.
Current, 4 amperes.
Type BC igniter.....each, $12.00



Type A Igniter.

Type A.

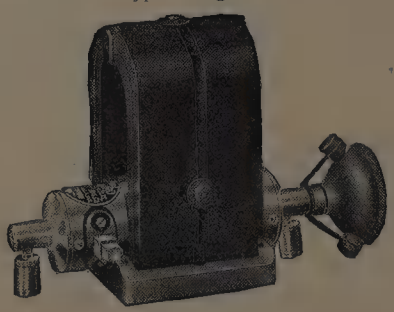
Similar to Type B, but with four magnets.
Wipe or contact spark for two-, three-, or four-cylinder engine.
Length, 10½ inches. Four magnets, 1⅝ x ⅜ inches.
Height, 7½ inches.
Weight, 14 lbs.
Voltage, 35 volts at 2,400 revolutions.
Current, 5 amperes.
Type A igniter.....each, $12.00



Type AC Igniter.

Type AC.

Similar to Type BC, but with four magnets.
Wipe or contact spark for two-, three-, or four-cylinder engine.
Spark coil attached to igniter itself.
Length, 10½ inches. Four magnets, 1⅝ x ⅝ inches.
Height, 7½ inches.
Weight, 15 lbs.
Voltage, 35 volts at 2,400 revolutions.
Current, 5 amperes.
Type AC igniter.....each, $14.00



Types R and H Igniter.

Type R.

Jump spark for one-cylinder stationary or marine engines only.
Length, 10½ inches. Four magnets, 1⅝ x ½ inches.
Height, 8 inches.
Weight, 15 lbs.
Voltage, 8 volts at 2,400 revolutions.
Current, 22 amperes.
Type R igniter.....each, $12.00

Type H.

Jump spark for two-, three-, or four-cylinder stationary or marine engines only.
Length, 10½ inches. Four magnets, 1⅝ x ½ inches.
Height, 8 inches.
Weight, 16 lbs.
Voltage, 10 volts at 2,400 revolutions.
Current, 26 amperes.
Type H igniter.....each, $15.00

IGNITERS.

Wizard Igniters (Continued).

Parts of Igniters.

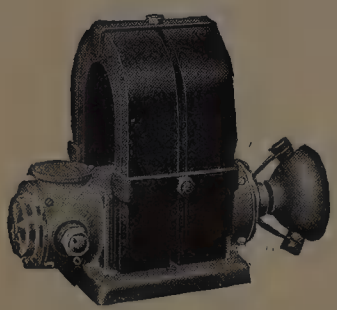
Armature, complete	$2.50
Commutator	.75
Rewinding armature	1.50
End bearings, each	.50
Brush spring	.02½
Brush slide spring	.03
Brush slide and spring	.10
Brush holder screws and insulation	.15
Magnets, each	.50
Patent friction drive, complete	1.50
Flat spring and balls	.35
Driving pulley	.50
Driving pulley leathers	.25
Collar and pins	.35
Screws, per dozen	.10
Pulley, 2½-inch	.50
Pulley, 3-inch	75
Ten cents additional for each one-half inch increase of pulley diameter.	
Brushes, per pair	.25

Star Igniters (for Automobiles).

These machines are high grade, direct current dynamos of the permanent field magnet type (with the exception of the types M and O).

They are especially designed for the hard service to which a magneto is subjected on an automobile.

They have extra heavy commutators, best India mica insulation, new friction drive, either ball or oil bearings as desired, and are made throughout of the best material obtainable.



Types L and S Igniter.

Type L.

For jump spark engines.
Weight, 25 pounds.
Height, 8 inches.
Length of shaft with ball bearings, 10 inches.
Length of shaft with oil bearings, 11¼ inches.
Base, 5 x 4¼ .
Voltage, 8½ volts at 1,500 revolutions.
Current, 17 amperes.

Type L igniter with oil bearings....each, $30.00
,, L ,, ,, ball ,, ... ,, 35.00

Type S.

For make and break spark engines.
Weight, 25 pounds.
Height, 8 inches.
Length of shaft with ball bearings, 10 inches.
Length of shaft with oil bearings, 11¼ inches.
Width, 5 inches.
Base, 5 x 4¼ inches.
Voltage, 27 volts at 1,000 revolutions.
Current, 4½ amperes.

Type S igniter with oil bearings....each, $30.00
,, S ,, ,, ball ,, ... ,, 35.00



Type C Igniter.

Type C.

For battery charging.
Weight, 25 pounds.
Height, 8 inches.
Length of shaft with ball bearings, 10 inches.
Length of shaft with oil bearings, 11¼ inches.
Width, 5 inches.
Base, 5 x 4¼ inches.
Voltage, 13 volts at 1,300 revolutions.
Current, 11 amperes.

Type C igniter with oil bearings...each, $30.00
,, C ,, ,, ball ,, ... ,, 35.00

IGNITERS.

Star Igniters (Continued).

Type M.

Alternator for make and break spark.
Weight, 23 pounds.
Height, 8 inches.
Length of shaft, 9½ inches.
Length of shaft with ball bearings, 8½ inches.
Width, 4¼ inches.
Base, 5 x 4¼ inches.
Voltage, 115 volts at 1,200 revolutions.
Voltage, 130 volts at 2,000 revolutions.

Type M alternator with oil bearings....each, $30.00
,, M ,, ,, ball ,, ... ,, 35.00

Type O.

Oscillator for make and break spark. Intended only for large engines and should not be used where speed is greater than 180 to 200 revolutions per minute.

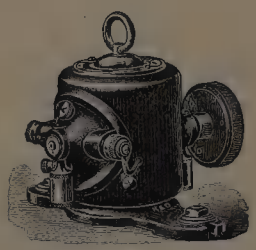
Weight, 27 pounds.
Height, 8 inches.
Length of shaft, 11¼ inches.
Width of arms, 8½ inches.
Base, 5 x 4¼ inches.

Type O oscillator .....each, $35.00

Parts of Star Igniters.

Armatures		$3.50
Commutator		.75
Driving pulley		.75
Collar with pins		.40
Flat spring with balls		.35
End bearings for oil		.75
Ball bearings	each,	3.50
Brushes, gauze	per pair,	.35
Brushes, carbon	,,	.25
Fiber insulation for brush holder		.20
Brass brush holder with nut		.35
Brass Hex-nut for brush holder		.10
Magnets, single for Type L, M and O,	each,	.75
Magnets, single for S and C	,,	.50
Leathers for pulley	per set,	.40

K. & D. Gas Engine Igniter.



K. & D. Igniter.

The K. & D. gas engine igniter is a thoroughly reliable igniting dynamo. It is self-contained, entirely enclosed, and moisture proof, which admits of its use in damp or exposed places. It has a laminated armature wound with twelve coils and composite self-adjusting brushes. All parts subject to wear are interchangeable and easily duplicated. Bearings are of hard drawn bronze; wick fed oil cups made extra large to hold a sufficient quantity of oil for a week's run.

Weight, 15 pounds. Height, 7½ inches. Length of base, 9 inches. Length of shaft, 7½ inches. Friction or grooved pulley, 2½ inches in diameter. Speed, 1,200 to 2,500. Capacity, 50 watts.

No. 10. Igniter, complete.....each, $18.00
,, 11. ,, ,, with tilting base, ,, 20.00

Apple Igniter.



Apple Igniter.

The apple igniter uses the current generated by the machine itself to energize its field coils, same as in a regular electric lighting dynamo.

It is completely enclosed as a protection against dust and moisture, has bronze bearings, laminated core armature, commutator of best drawn copper with amber mica insulation, carbon and gauze brushes, and oil cups. Dimensions, 10⅞ inches long by 5⅝ inches wide by 5⅞ inches high.

Output: 3 amperes, 4 volts at 800 revolutions.
3 ,, 6 ,, ,, 1000 ,,
3 ,, 8 ,, ,, 1200 ,,

(*Continued on next page.*)



Plain Belt Pulley.



Plain Friction Pulley.



Belt Clutch Governor.



Friction Clutch Governor.



Chain Clutch Governor.



Gear Clutch Governor.



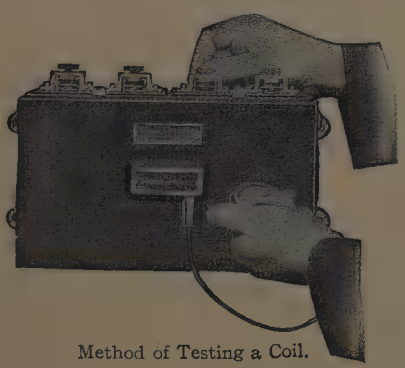
Automatic Friction Governor



Apple Igniter with Shaft.



Apple No. 12S Switchboard.



Method of Testing a Coil.



Crown Polarity Indicator.

IGNITERS.

Apple Igniters (Continued).

No. S-1543. The apple ingition dynamo	$25.00
Plain belt pulley B. 1½-inch	.40
,, ,, ,, B. 2 ,,	.55
,, ,, ,, B. 2½ ,,	.65
Plain friction pulley, A. 2-inch	1.25
,, ,, ,, A. 2½ ,,	1.50
,, ,, ,, A. 3 ,,	1.75
Belt clutch governor, C. 2-inch	8.00
,, ,, ,, C. 3 ,,	8.50
Friction clutch governor, F. 3-inch	9.00
,, ,, ,, F. 4 ,,	9.50
,, ,, ,, F. 5 ,,	10.00
,, ,, ,, F. 6 ,,	10.50
Spring base	2.00
Chain clutch governor, E. 7-tooth sprocket, for ⅜-inch chain	9.00
Gear clutch governor, D. 3-inch (pitch)	9.00
,, ,, ,, D. 4 ,, (,,)	10.00
Automatic friction governor, J	6.00
Enclosed adjustable automatic friction governor,	25.00
Encased ball-bearing shaft, per foot	12.50

Apple Dynamo-Storage Battery Ignition System.

It consists of the apple battery charger, the apple 12S switchboard, any good storage battery, and the necessary timer, coils, and plugs. The dynamo, turned by the engine fly-wheel, charges the battery through the switchboard in proportion to the battery's discharge, while the battery current is distributed to the coils by the timer and thence to the plugs where the igniting spark occurs.

The 12S switchboard indicates the charging rate of the dynamo and the discharging rate of the battery.

The Apple enclosed adjustable automatic friction governor or the Apple automatic friction governor provides for adjusting the dynamo's charging rate from 0-3 amperes.

Apple 12S switchboard.....each, $25.00

IMMERSION Coil Heater (see Heaters).

INDICATORS (see Boards, telltale).

INDICATORS, Current.

Connecticut Coil Current Indicators

(see Switches, gas engine, and Coils, Ammeters, etc.).

Few people who operate a gas engine realize how much current they are using, several amperes being used in some instances where a fraction of an ampere would do the work. The Connecticut coil will operate successfully on ¼ ampere (see Coils, spark).

If the coil is wired to a Connecticut Type P plug switch the indicator may be plugged in instantly and the coil readily adjusted.

Your dry or storage batteries will last much longer if the coil is properly set.

No. S-1544. Price, including case, cord, and plug only	$6.00
No. S-1545. With Type P plug switch	7.25

INDICATORS, Current or Potential (see Ammeters, Voltmeters, etc.).

INDICATORS, Polarity (see Paper, pole finding).

Crown Polarity Indicator.

This instrument is designed to find the polarity of the electric current. It will upon proper connection instantly indicate the current, the positive being indicated by a plus sign (+) and the negative by a minus sign (—).

No. S-1546.....0 to 20 volts.....each,	$3.25
,, S-1547.....0 ,, 120 ,, ... ,,	4.25

INDICATORS (Continued).

Manhattan Polarity Indicators.



Manhattan Polarity Indicator.

Can be carried in the vest pocket. Size, 3½ x 1 inch. Will indicate instantly the negative and positive poles when connected in circuit. The nickel plated shell protects the glass tube when not in use.

No. 3320. For use with battery.....each, $1.50
,, 3321. ,, 50- to 600-volt use..... ,, 1.50

INDICATOR, Speed.

Starrett's Speed Indicator No. 104.



No. 104.

Dial plate has two rows of figures reading right and left as the shaft may run. The inner plate is frictionally clamped to the revolving gear by a checked wafer head screw, so that the 0 mark may be instantly moved to agree with the starting point, thus saving time in setting.

Complete, with rubber tips for both pointed and centred shafts.....net, $1.00
With leatherette case..... ,, 1.50

Starrett's Speed Indicator No. 106.



No. 106.

The graduations show every revolution and with two rows of figures read right and left. While looking at the watch, each hundred revolutions may be counted by allowing the oval headed pin on the revolving disk to pass under the thumb as the instrument is pressed to its work. Dial may be instantly set to 0 mark. Nickel-plated finish, rosewood handle.

Complete, with rubber tips.....net, $1.50
With leatherette case..... ,, 2.00

Starrett's Registering Speed Indicator No. 107.



No. 107.

This instrument automatically registers hundreds as well as units and tens up to 5,000 revolutions.

The large dial is graduated into one hundred lines, each one representing a revolution of the spindle.

The small dial has fifty lines each representing one hundred revolutions of the spindle.

The small dial is tripped one line for each complete revolution of the large dial.

Handle is of hard rubber for insulation from electrical machinery.

Complete, with rubber tips..... $3.00
With leatherette case..... 3.50

Starrett's Surface Speed Attachment No. 109.



No. 109 on Speed Indicator.

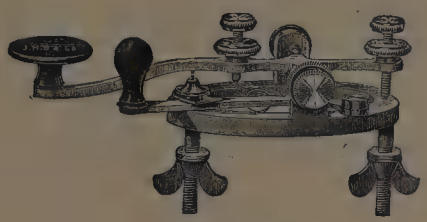
This attachment applied to any of above indicators will show the number of lineal feet per minute the periphery of a shaft or pulley is running.

It consists of a rubber-banded wheel which may be instantly slipped on or off of the indicator.

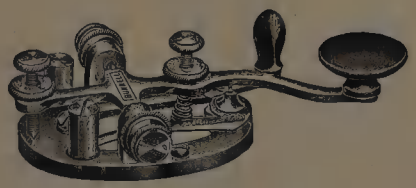
Each revolution of the indicator wheel shows six inches, twice around one foot, therefore divide reading of dial by 2 to get number of feet.

Attachment only.....net, $ .50

INDICATING Switches (see S).
INDUCTION Coil (see Coils and Telephones).
INNER Wired Hood (see Fixtures, street).
INNER Rope Bracket (see Fixtures, pole and wall).
INSTRUMENT Sterilizer (see S).
INSTRUMENTS, see following headings:
Instruments, Telegraph.
,, Testing (see Galvanometers; Tester, bond; Tester, coil; Voltmeters; Ammeters; Meters, watt; Magnetos; Bridge, etc.).



No. 530.



No. 531.

INSTRUMENTS, Telegraph.

Bunnell Telegraph Keys.

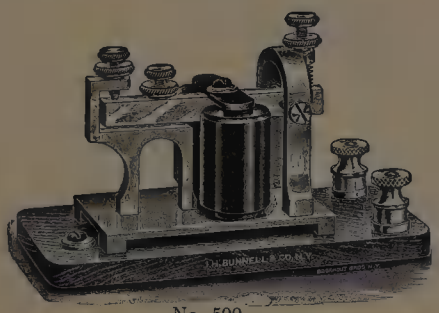
The lever is only half the weight of the ordinary brass lever, and with the trunnions is of one piece of finely wrought steel. The solid trunnion and hardened platina points prevent sticking.

No. 530. Leg key, with either straight or curved lever .....each, $1.75

No. 531. Legless key, with either straight or curved lever .....each, 2.25

No. 532. Soft rubber cap for key lever knob, for prevention of writer's cramp and to facilitate the easy manipulation of the key .....each, .15

Bunnell Telegraph Sounders.



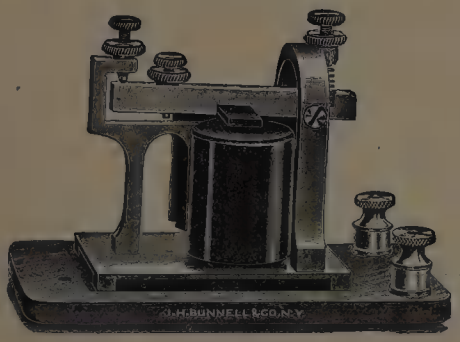
No. 500.

Aluminum Lever Sounder.

The new aluminum lever sounders excel all others in tone, loudness, and quick action.

No. 500. Original giant sounder wound to 4 ohms, requires half the amount of local battery of any other form of sounders .....each, $2.25

No. 501. Wound with fine wire to 20 ohms resistance; for main line use (without relay) on lines up to 15 miles in length .....each, 2.75



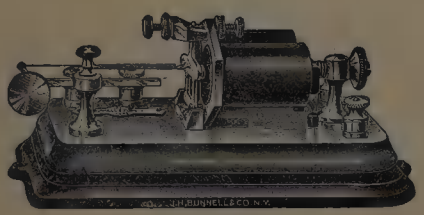
No. 515.

1892 Giant Sounder.

With large magnets and important new improvements. They have aluminum or brass levers, and with one cell of local crowfoot battery will give a loud, clear, and quick stroke.

No. 515. Wound to 4 ohms resistance, each, $3.00
,, 516. ,, ,, 20 ,, ,, ,, 3.50

Bunnell Standard No. 1 Relay.

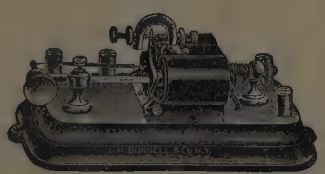


No. 533.

A main line relay, solid trunnion, single piece armature. Wound with silk-covered wire, polished rubber-covered coils, mahogany base. Mounted on ornamental surbase, with extension adjustment, improved form of trunnion seat, improved magnet adjustment, etc.

No. 533. Relay, 150 ohms resistance..each, $7.00
,, 534. ,, 200 ,, ,, .. ,, 7.50
,, 535. ,, 300 ,, ,, .. ,, 8.00

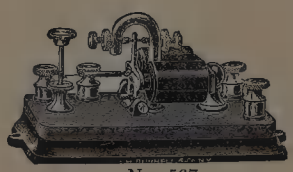
Bunnell Standard No. 2 Relay.



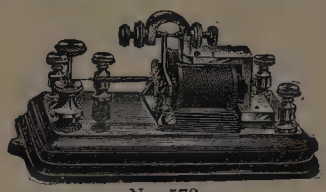
No. 536.

A main line relay, goose neck pattern, adopted by the Western Union and Postal Telegraph companies.

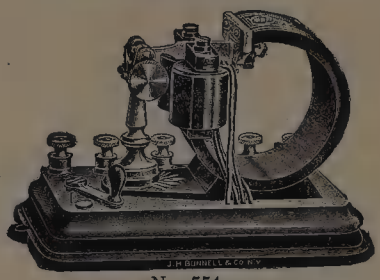
No. 536. Relay, 150 ohms resistance..each, $6.00
,, 537. ,, 200 ,, ,, .. ,, 6.50
,, 538. ,, 300 ,, ,, .. ,, 7.00



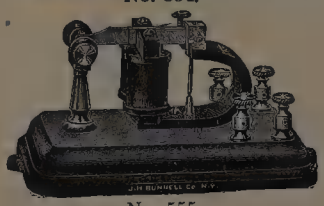
No. 567.



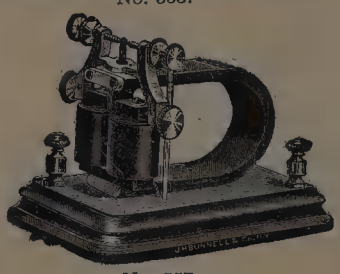
No. 570.



No. 554.



No. 555.



No. 557.



No. 581.



No. 559.

INSTRUMENTS, **Telegraph** (Continued).

Bunnell Dandy Pony Relay.

Latest model, mounted on finely polished base, with polished surbase, platinum contacts, etc.

No. 567. Relay, 20 ohms, non-adjustable, rubber-covered magnets ...each, $3.50
No. 568. Relay, 20 ohms, non-adjustable, cloth-covered magnets .....each, 3.00
No. 569. Relay, 20 ohms, adjustable, rubber-covered magnets .....each, 4.00

Bunnell Novel Form Pony Relay.

For lines of less than 75 miles in length, finely finished, mounted on polished mahogany base, with ornamental surbase. Size, 6½ x 3½ inches.

No. 570. Relay, 20 ohms or under, for lines up to 15 miles.....each, $3.50
No. 571. Relay, 50 ohms, for lines of 20 to 40 miles.....each, 4.00
No. 572. Relay, 75 ohms resistance.... ,, 4.25
,, 573. ,, 100 ohms resistance, for lines of 75 miles.....each, 4.50
No. 574. Ditto with polished rubber magnets,.....each, 5.00

Bunnell Standard Polarized Relay.

No. 554. Differentially wound, 400 ohms, each, $16.00
No. 555. Polarized relay, No. 1, small size, 20 ohms.....each, 5.50
No. 556. Polarized relay, No. 1, small size, 50 ohms.....each, 6.00
No. 557. Polarized relay, No. 2, very strong, 50 ohms.....each, 7.50
No. 558. Polarized relay, No. 2, very strong, 100 ohms..... ,, 8.00

Bunnell Pocket Relay

Has all the practical qualities of a full sized sounding relay, and is a very compact and handsome instrument.

Size of case outside, 5¾ inches long; 2¾ inches wide; 2½ inches deep. Especially adapted for testing, or for railway or military telegraph use.

No. 581. Pocket relay, resistance 250 ohms or under, complete with case, each, $14.00

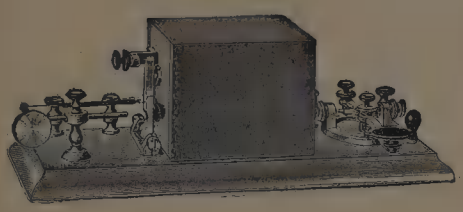
Bunnell New Main Line Sounding Relay. M. C. M. Model.

With all latest improvements, instantaneous adjustment of both armature spring and distance from magnet cores, both adjustment nuts conveniently located in front. The arrow on the upper adjusting nut indicates the relative distance between armature and magnet cores, and a wide and rapid range of spring adjustment obtained by a cam lever operated by the lower adjusting nut.

Intended for use on main lines in place of the ordinary relay, and dispensing entirely with the local sounder, thus saving the continual expense of maintaining local batteries.

No. 559. Sounding relay, 150 ohms, with key on base.....each, $9.00
No. 560. Sounding relay, 150 ohms, without key.....each, 8.00
No. 561. Mahogany case for wrecking sets, each, 2.50
No. 562. Leather case..... ,, 5.00
,, 563. Sounding relay, 200 to 300 ohms, with key on base.....each, 9.50

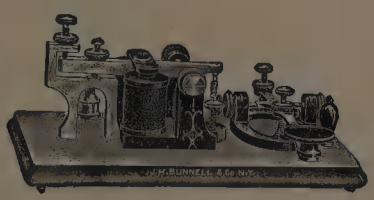
(*Continued on next page.*)



No. 542.



No. 504.



No. 607.



No. 611.



No. 5873.



No. 5874.

INSTRUMENTS, Telegraph.

Bunnell New Main Line Sounding Relay

M. C. M. Model (Continued).

No. 564. Sounding relay, 200 to 300 ohms, without key.....each, $8.50
No. 565. Sounding relay, 20 to 100 ohms, with key on base.....each, 8.50
No. 566. Sounding relay, 20 to 100 ohms, without key.....each, 7.50

Nos. 563 to 566 are for circuits of from 1 to 100 miles in length, when with ordinary main battery power suitable for such lines they are equal to the best local sounders.

Bunnell Box Sounding Relay and Steel Lever Key Combination Set.

Of best construction for loud, clear sound, without local sounder. Polished mahogany base and box. Silk-covered magnet wire.

No. 542. Combination relay and key set, 150 ohms.....each, $8.00
No. 543. Combination relay and key set, 200 ohms.....each, 8.50
No. 544. Combination relay and key set, 300 ohms.....each, 9.00
No. 545. Ditto without key, 150 ohms, each, 6.25
,, 546. ,, ,, ,, 200 ,, ,, 6.75
,, 547. ,, ,, ,, 300 ,, ,, 7.25

Bunnell Standard Giant Sounder and Steel Lever Key Combination Set.

For learners' use, or for use on city wires, private lines, and all short lines up to 15 miles in length. Latest form of giant sounder, finely finished with aluminum lever, polished rubber-covered magnets wound with fine silk covered wire, mounted on polished mahogany base, with steel lever, solid trunnion key and guaranteed hardened platinum points.

The standard of the Western Union and Postal Telegraph companies and all the principal railroad telegraph companies in the United States.

No. 504. Combination sounder and key set, 20 ohms, for lines up to 15 miles in length, no relay required, each, $4.50
No. 505. Combination sounder and key set, 4 ohms, for local battery....each, 4.00

Bunnell Morse Learners' Combination Set.

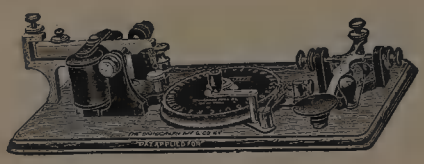
Consists of a giant sounder, with steel lever, solid trunnion key, mounted on polished wood base. Strong magnets, finely finished brass sounder lever, yoke, and adjusting screws.

No. 607. Morse sounder and key set, wound to 4 ohms.....each, $2.00
No. 608. Morse sounder and key set, wound to 20 ohms resistance, for outdoor lines up to 15 miles....each, 2.25

Bunnell New Departure Learners' Set.

The ideal set for home practice. A well made instrument with a steel lever key arranged for use with a dry battery. The circuit closer is detached from the key as it will prolong the life of the battery to leave the circuit open when not in use.

No. 611. Small lever key and sounder, on base, complete with one cell of dry battery.....each, $2.00
No. 5873. "Beeko" learners' key only (same as used on No. 611), each, .75
No. 5874. "Beeko" learners' sounder only (same as used on No. 611), each, 1.00



No. 636.

INSTRUMENTS, **Telegraph** (Continued).

The Omnigraph.

This is a finely finished telegraph set of key, sounder, and transmitter, designed to teach telegraphy correctly, in the shortest possible time. By means of it, a learner can tick off a message containing every letter in the Morse alphabet, absolutely correctly, and at any speed desired, only one cell of battery, either dry or crowfoot, being required to do the work. The dots, dashes, and spaces can be seen as well as heard. It makes learning easy as well as interesting. A book of instruction goes with each instrument.

No. 636. Omnigraph.....each, $4.00

INSTRUMENTS, Testing (see Galvanometers; Tester, bond; Tester, coil; Voltmeters; Ammeters; Meters, watt; Magnetos, testing; Bridge; etc.).

INSULATED Bolts (see Suspensions and Bolts, insulated).

INSULATED Handles (see Pliers).

INSULATED Wire (see W).

INSULATED Staples (see S).

INSULATED Turnbuckle (see T).

INSULATING Bushing (see B).

INSULATING Joints (see J).

INSULATING Paper (see Paper and Fibre).

INSULATORS, see following headings:

Insulators, Arc Lamp (see Hangers, Hooks, Boards, ceiling, etc.).
" Box (see Bushings).
" Canopy (see Joints, insulating).
" Connectors.
" Cutters (see Hangers, Insulators, tree, etc.).
" Feeder.
" Feed Wire.
" Glass.
" Guard Wire.
" High Voltage (see Hangers).
" Hood.
" Jupiter (see Hangers, arc).
" Porcelain.
" Rope.
" Section.
" Span.
" Spool.
" Strain.
" Swinging (see Insulators, tree).
" Third Rail.
" Tree.
" Wire Rope (see Insulators, rope).

INSULATORS, Arc Lamp (see Hangers, Hooks, Boards, ceiling, etc.).

INSULATORS, Box (see Bushings).

INSULATORS, Canopy (see Joints, insulating).

INSULATORS, Connector.

Osgood Connector Insulator



Osgood Connector Insulator.

Does away with all taping of the two-way connectors of motor leads. Makes a durable watertight insulating covering that can be instantly attached or detached. A great time saver in connecting up railway motors.

Type A takes connections up to and including $\frac{9}{16}$ inch. Type B takes connections up to and including $\frac{5}{8}$ inch.

The figures refer to size of hole in nipple. No. 4 takes wire up to $\frac{7}{16}$ inch outside diameter. Nos. 5 and 6 take wire up to $\frac{9}{16}$ inch outside diameter.

	Each.		Each.
Type A. 4–4 wire,	$ .20	Type B. 4–4 wire,	$ .25½
" A. 4–5 "	.23	" B. 4–6 "	.29
" A. 5-5 "	.26	" B. 6–6 "	.33



No. 40207.



No. 17199.



No. 16951.



No. 17307.



Pony.



Pony Double Petticoat.

INSULATORS, Cutter's (see Hangers, Insulators, tree, etc.).

INSULATORS, Feeder (see Holders, wire).

G. E. Feeder Insulators.

For use in pole bracket construction for insulating taps run from the feeder to the trolley wire. Opening in insulating bushings is 1 inch.

No. 40207. For 1¼ in. pipe (1.66 in. outside diam.), each, $1.00
,, 40208. ,, 1½ ,, ,, (1.9 in. ,, ,,) ,, 1.00
,, 40209. ,, 2 ,, ,, (2.38 ,, ,, ,,) ,, 1.00

INSULATORS, Feed Wire.

G. E. Co. Feed Wire Insulators.

These insulators are specially adapted for use on curves, where the transverse strain of heavy feeders is liable to break ordinary glass insulators. They are particularly recommended for use with iron pins.

No. 27438. Feeder wire pole insulator, with groove for 1½ in. or 800,000 cm. conductor . . . per 100, $100.00

No. 17199. Feeder wire pole insulator, with groove for No. 0000 or 500,000 cm. conductor, per 100, 87.50

No. 16951. Feeder wire pole insulator, with clips for No. 0000 conductor composition cap, per 100, 162.50

No. 21455. Feeder wire pole insulator, with clips for 500,000 cm. conductor, malleable iron cap, japanned . . . . . per 100, 82.50

No. 16952. Feeder wire pole insulator, with clips for 500,000 cm. conductor, composition cap, per 100, 162.50

No. 51897. Feeder wire pole insulator with clip for 800,000 cm. conductor, malleable iron cap, japanned . . . . . per 100, 95 00

No. 51892. Feeder wire pole insulator, with clips for 800,000 cm. conductor, composition cap, per 100, 187.50

No. 51896. Feeder wire pole insulator, with clips for 1,500,000 cm. conductor, malleable iron cap, japanned . . . . . per 100, 95.00

No. 51891. Feeder wire pole insulator, with clips for 1,500,000 cm. conductor, composition cap, per 100, 187.50

No. 17307. Feeder wire insulator for 1⅛ in. conductor. Furnished with solid cap if desired, per 100, 237.50

INSULATORS, Glass.

Brookfield Glass Insulators.

No.		Per 1,000.
S-1548.	Pony	$22.00
	Standard package, 350. Weight per 1,000, 740 lbs.	
S-1549.	Pony double petticoat	30.00
	Standard package, 275. Weight per 1,000, 950 lbs.	

(*Continued on next page.*)



National Pony.



Pony Double Groove.


Brown Pony.



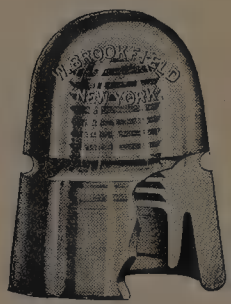
Deep Groove.



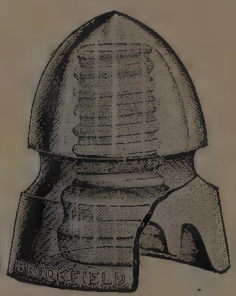
Deep Groove Double Petticoat.



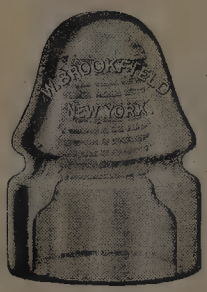
Extra Deep Groove Double Petticoat.



Double Petticoat.



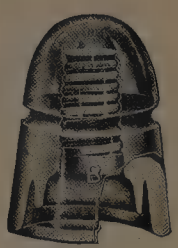
Burbrook.



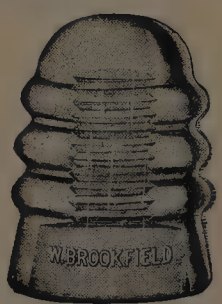
Regular.



Western Union.


Western Union Double Petticoat.


Brown Deep Groove.



Large Double Groove.



Long Distance.

INSULATORS, Glass.

Brookfield Glass Insulators (Continued).

No.		Per 1,000
S-1550.	National pony..... Standard package, 300. Weight per 1,000, 850 lbs.	$24.00
S-1551.	Pony double groove, Standard package, 340. Weight per 1,000, 760 lbs.	22.00
S-1552.	Brown pony..... Standard package, 350. Weight per 1,000, 750 lbs.	45.00
S-1553.	Deep groove..... Standard package, 200. Weight per 1,000, 1,275 lbs.	37.00
S-1554.	Deep groove double petticoat..... Standard package, 175. Weight, per 1,000 1,475 lbs.	45.00
S-1555.	Extra deep groove double petticoat..... Standard package, 165. Weight per 1,000, 1,550 lbs.	45.00
S-1556.	Double petticoat.... Standard package, 165. Weight per 1,000, 1,500 lbs.	48.00
S-1557.	Bell double petticoat, Standard package, 165. Weight per 1,000, 1,600 lbs.	53.00
S-1558.	" Burbrook " extra, D. G. D. P..... Standard package, 175. Weight, per 1,000, 1,550 lbs.	45.00
S-1559.	Regular..... Standard package, 250. Weight per 1,000, 1,100 lbs.	35.00
S-1560.	Western Union..... Standard package, 200. Weight per 1,000, 1,450 lbs.	40.00
S-1561.	Western Union double petticoat..... Standard package, 200. Weight per 1,000, 1,700 lbs.	50.00
S-1562.	Brown deep groove.. Standard package, 250. Weight per 1,000, 950 lbs.	50.00
S-1563.	Large double groove, Standard package, 165. Weight per 1,000, 1,700 lbs.	50.00
S-1564.	Long distance..... Standard package, 225. Weight per 1,000, 1,050 lbs.	35.00

(*Continued on next page.*)



Locke Transposition No. 14.



Two-piece Transposition.



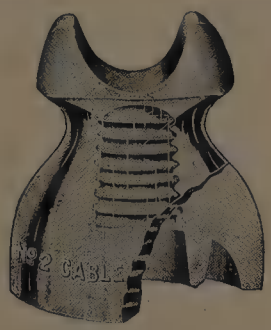
Tree Insulator.



O'Brien.



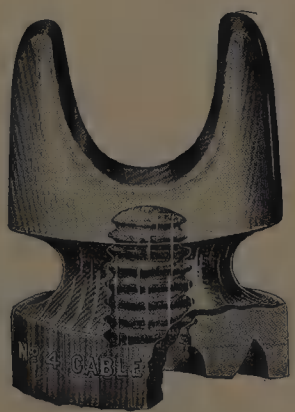
Cable.



No. 2 Cable.



No. 3 Cable.



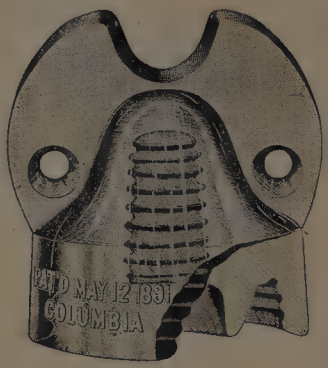
No. 4 Cable.

INSULATORS, Glass.

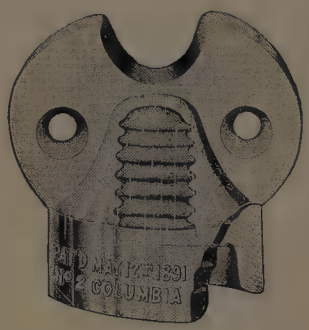
Brookfield Glass Insulators
(Continued).

No.		Per 1,000.
S-1565.	Locke Transposition No. 14	$105.00
	Standard package, 100.	
	Weight per 1,000, 2,250 lbs.	
S-1566.	Two-piece transposition	100.00
	Standard package 125 pairs.	
	Weight per 1,000, 2,000 lbs.	
	Requires special pin.	
S-1567.	Tree	100.00
	Standard package, 250.	
	Weight per 1,000, 965 lbs.	
S-1568.	Crown	100.00
	Standard package, 175.	
	Weight per 1,000, 1,575 lbs.	
S-1569.	O'Brien	40.00
	Standard package, 225.	
	Weight per 1,000, 900 lbs.	
S-1570.	Cable	75.00
	Single petticoat.	
	Diameter, 3½ inches.	
	Height, 4½ inches.	
	Top groove, 1¼ inches.	
	Side groove, ¾ inch.	
	Standard thread.	
	110 in a barrel.	
	Weight per 1,000 packed, 2,100 lbs.	
S-1571.	No. 2 cable	65.00
	Double petticoat.	
	Diameter, 3¾ inches.	
	Height, 4 inches.	
	Top groove, 1¼ inches.	
	Side groove, 1¼ inches.	
	Standard thread.	
	125 in a barrel.	
	Weight per 1,000 packed, 2,000 lbs.	
S-1572.	No. 3 cable	100.00
	Double petticoat.	
	Diameter, 4¼ inches.	
	Height, 5½ inches.	
	Top groove, 2 inches.	
	Side groove, 1¾ inches.	
	Standard thread.	
	50 in a barrel.	
	Weight per 1,000 packed, 3,950 lbs.	
S-1573.	No. 4 cable	300.00
	Double petticoat.	
	Diameter, 4 inches.	
	Height, 5¼ inches.	
	Top groove, 2¼ inches.	
	Side groove, 1¼ inches.	
	Standard thread.	
	50 in a barrel.	
	Weight packed, 3,870 lbs.	

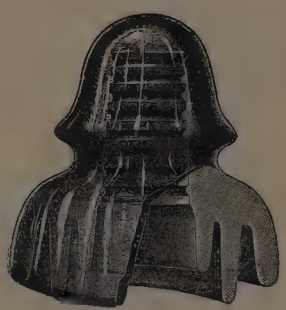
(*Continued on next page.*)



Columbia.



No. 2 Columbia.



Locke No. 15.



Locke No. 16.



Locke No. 17.

INSULATORS, Glass.

Brookfield Glass Insulators
(Continued).

No. — Per 1,000.

S-1574. Columbia..... $140.00
Double petticoat.
Diameter, 4 inches.
Height, 4¾ inches.
Groove, 1⅜ inches.
Standard thread.
78 in a barrel.
Weight packed, 2,860 lbs.

S-1575. No. 2 Columbia..... 80.00
Single petticoat.
Diameter, 3¼ inches.
Height, 4 inches.
Groove, 1⅜ inches.
Standard thread.
110 in a barrel.
Weight per 1,000 packed, 1,715 lbs.

S-1576. Mershon (same as Locke No. 18)..... 205.00
Triple petticoat.
Diameter, 5½ inches.
Height, 5 inches.
Groove, ⅝ inch.
Standard thread.
50 in a barrel.
Weight per 1,000 packed, 3,580 lbs.
Working voltage, 15,000.
Test voltage, 25,000.

S-1577. Locke No. 15..... 95.00
Triple petticoat.
Diameter, 4¼ inches.
Height, 3¾ inches.
Groove, ⅝ inch.
Standard thread.
125 in a barrel.
Weight per 1,000 packed, 2,200 lbs.
Working voltage, 6,000.
Test voltage, 10,000.

S-1578. Locke No. 16..... 145.00
Triple petticoat.
Diameter, 6 inches.
Height, 4½ inches.
Groove, 1 inch.
Standard thread.
40 in a barrel.
Weight, per 1,000 packed 4,325 lbs.
Working voltage, 15,000.
Test voltage, 25,000.

S-1579. Locke No. 17..... 205.00
Triple petticoat.
Diameter, 7 inches.
Height, 5 inches.
Groove, 1⅛ inches.
Requires special threaded pin.
33 in a barrel.
Weight per 1,000 packed, 7,535 lbs.
Working voltage, 20,000.
Test voltage, 35,000.

(*Continued on next page.*)

INSULATORS, Glass.

Brookfield Glass Insulators
(Continued).



No. 18.

No. S-1580. Locke No. 18 (same as Mershon), per 1,000, $215.00
Triple petticoat.
Diameter, 5½ inches.
Height, 5½ inches.
Groove, ⅝ inch.
Standard thread.
50 in a barrel.
Weight, per 1,000 packed, 3,580 lbs.
Working voltage, 15,000.
Test voltage, 25,000.



No. 19.

No. S-1581. Locke No. 19.....per 1,000, 240.00
Double petticoat.
Diameter, 7½ inches.
Height, 6 inches.
Groove, 1¼ inches.
Requires special threaded pin, 1⅜ in.
30 in a barrel.
Weight, per 1,000 packed, 7,000 lbs.
Working voltage, 20,000.
Test voltage, 35,000.

No. S-1582. Locke No. 20.....per 1,000, 95.00
Triple petticoat.
Diameter, 4½ inches.
Height, 4 inches.
Groove, 1⅛ inches.
Standard thread, 1 inch.
125 in a barrel.
Weight, per 1,000 packed, 2,560 lbs.
Working voltage, 5,000.
Test voltage, 10,000.



No. 20.

No. S-1583. Locke No. 21.....per 1,000, 95.00
Double petticoat.
Diameter, 4 inches.
Height, 4 inches.
Groove, 1⅝ inches.
Requires special threaded pin.
75 in a barrel.
Weight, per 1,000 packed, 2,625 lbs.
Working voltage, 5,000.
Test voltage, 9,000.



No. 21.

No. S-1584. Locke No. 23.....per 1,000, 300.00
(Similar to No. 19.)
Double petticoat.
Diameter, 9 inches.
Height, 6 inches.
Groove, 1¼ inches.
Requires special threaded pin.
20 in a barrel.
Weight per 1,000 packed, 9,450 lbs.
Working voltage, 25,000.
Test voltage, 45,000.

(*Continued on next page.*)



No. 25.



Jumbo.



New Jumbo.



Glass Knob No. 1.



Glass Knob No. 2.



Glass Knob No. 3.



Glass Knob No. 7.

INSULATORS, Glass.

Brookfield Glass Insulators

(Continued). Per 1,000.

No. S-1585. Locke No. 25, $1,300.00
Two piece(cemented).
Diameter, 11 inches.
Height, 10 inches.
Groove, 1⅛ inches.
Requires special threaded pin.
20 tops in a barrel.
30 centres in a barrel.
Weight, per 1,000 packed, 16,500 lbs.
Working voltg., 40,000.
Test voltage, 70,000.

No. S-1586. Jumbo, 350.00
Diameter, 5 inches.
Height, 5¾ inches.
Groove, 1½ inches.
Requires special threaded pin.
44 in a barrel.
Weight, per 1,000 packed, 5,540 lbs.

No. S-1587. New Jumbo, 450.00
Diameter, 5 inches.
Height, 7 inches.
Top groove, 2 inches.
Side groove, 1½ inches.
Requires special threaded pin
33–34 in a barrel.
Weight, per 1,000 packed, 6,315 lbs.

Glass Knobs.

No. 1. Knob insulator, $15.00
Width, 1½ inches.
Height, 1¾ inches.
Groove, ⅜ inch.
Hole, ⅜ inch.
Standard package, 500.
Weight per 1,000, 220 lbs.

No. 2. Knob insulator, 20.00
Width, 2 inches.
Height, 1⅞ inches.
Groove, ½ inch.
Hole, ⅜ inch.
Standard package, 500.
Weight per 1,000, 500 lbs.

No. 3. Knob insulator, 20.00
Width, 2 inches.
Height, 2 inches.
Groove, ⅝ inch.
Hole, ⅜ inch.
Standard package, 500.
Weight per 1,000, 530 lbs.

No. 7. Knob insulator, 25.00
Width, 2 inches.
Height, 2 inches.
Groove, ⅝ inch.
Hole, ⅜ inch.
Standard package, 500.
Weight per 1,000, 530 lbs.



No. 104M.



No. 105M.



No. 106M.



No. 418.



No. 419.



No. 420.



No. 264.



Cutter's Hood Insulator.



No. 1009.
„ 1013.
„ 1030.



No. 3023.



No. 1020.
„ 1022.



No. 1010.
„ 1010A.



No. 1025.
„ 1025A.
„ 1025B.
„ 1038.

INSULATORS, Guard Wire.

Guard Wire Hangers.

		Per 100.
No. 104M.	Straight line, malleable iron castings, porcelain insulation.....	$30.00
No. 105M.	Single pull-off, malleable iron castings, porcelain insulation. .	30.00
No. 106M.	Double pull-off, malleable iron castings, porcelain insulation..	30.00
No. 418.	Straight line, malleable iron castings, Ætna insulation.....	50.00
No. 419.	Single pull-off, malleable iron castings, Ætna insulation.....	50.00
No. 420.	Double pull-off, malleable iron castings, Ætna insulation.....	50.00

Guard Wire Strain Insulators.

No. 264.	Guard wire strain insulator with porcelain insulation.....per 100,	$37.50
No. 265.	Guard wire strain insulator with Ætna insulation.....per 100,	125.00

INSULATORS, High Voltage (see Hangers).

INSULATORS, Hood.

Cutter's Hood Insulator.

Easily inserted between the goose neck and the cross arm on bracket streethoods to adapt them for the higher voltages.

No. S-1601.	With fittings for ½-in. (bore) pipe..... net, each,	$ .50
No. S-1602.	With fittings for ¾-in. (bore) pipe..... net, each,	.50

INSULATORS, Jupiter (see Hangers, arc).

INSULATORS, Porcelain.

High Potential Porcelain Insulators.

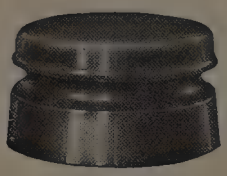
Prices on application.

	No. 1009.	No. 1030.	No. 1013.	No. 3023.
Diam.	3⅞ in.	4½ in.	3¼ in.	5¼ in.
Height	3 „	3¾ „	2¾ „	4⅛ „
Top groove	¾ „	¾ „	⅝ „	⅞ „
Side „	⅜ „	½ „	7/16 „	⅞ „
Wt. packed in bbls.	1¾ lbs.	3 lbs.	1 lb.	6¾ lbs.
No. per bbl.	150	100	200	50
Test volt	20000	40000	20000	50000
Line „	5000	10000	5000	15000
Rain test	12000	20000	12000	28000
Diam. pin hole	1 in.	1 in.*	1 in.	1 in.
Depth „	2 „	2½ „	1¾ „	2¼ „

	No. 1010.	No. 1010A.	No. 1020.	No. 1022.
Diam.	3⅞ in.	3⅞ in.	5 in.	4⅛ in.
Height	3 „	3 „	4⅝ „	4 3/16 „
Top groove	⅝ „	1¼ „	1⅞ „	1½ „
Side „	¾ „	¾ „	1¼ „	1¾ „
Wt. packed in bbls.	1½ lbs.	1½ lbs.	6 lbs.	4½ lbs.
No. per bbl.	150	150	50	70
Test volt	20000	20000	50000	40000
Line „	5500	5500	11000	10000
Rain test	11500	11500	26000	20000
Diam. pin hole	1 in.	1 in.	1⅝ in.	1⅜ in.
Depth „	2 „	2 „	3½ „	2½ „

	No. 1025.	No. 1025A.	No. 1025B.	No. 1038.
Diam.	3 in.	3 in.	3 in.	3⅛ in.
Height	3⅜ „	3⅜ „	3⅜ „	3⅞ „
Top groove	¾ „	9/16 „	1 „	1⅛ „
Side „	⅝ „	⅝ „	⅝ „	⅝ „
Wt. packed in bbls.	1 lb.	1 lb.	1 lb.	1¼ lbs.
No. per bbl.	250	250	250	225
Test volt	20000	20000	20000	20000
Line „	3000	3000	3000	5000
Rain test	12000	12000	12000	13000
Diam. pin hole	1 in.	1 in.	1 in.	1⅞ in.
Depth „	2½ „	2½ „	2½ „	2¾ „

*Or 1⅛ inch.



No. 1002.



No. 1037.

INSULATORS, Porcelain.

High Potential Porcelain Insulators (Continued).

	No. 1002.	No. 1037.	No. 1017.	No. 1019.
Diam.	5⅜ in.	6 9/16 in.	4 5/16 in.	7¼ in.
Height	3 ,,	3⅜ ,,	3⅜ ,,	5¾ ,,
Top groove		1 ,,	½ ,,	⅝ ,,
Side ,,	¾ in.	¾ ,,	½ ,,	⅝ ,,
Wt. packed in bbl.	4¼ lbs.	4 lbs.	1½ lbs.	7 lbs.
No. per bbl.	60	50	130	30
Test volt.	30000	50000	40000	75000
Line ,,		15000	7500	25000
Rain test		34000	20000	40000
Diam. pin hole	2⅜ in.	1 in.	1 in.	1 in.*
Depth ,,	2 1/16 ,,	2¼ ,,	2 9/16 ,,	4⅝ ,,



No. 1017.
,, 1019.



No. 2017.
,, 2020.

	No. 2017.	No. 2020.	No. 2021.	No. 2033.
Diam.	6¾ in.	7⅛ in.	7¼ in.	7¼ in.
Height	5⅜ ,,	5⅛ ,,	7 ,,	5¼ ,,
Top groove	1 ,,	¾ ,,	1 ,,	1 ,,
Side ,,	7/16 ,,	½ ,,	⅝ ,,	½ ,,
Wt. packed in bbl.	4¼ lbs.	4½ lbs.	8 lbs.	7⅛ lbs.
No. per bbl.	40	40	20	25
Test volt.	50000	50000	70000	65000
Line ,,	15000	15000	25000	18000
Rain test	36000	40000	48000	40000
Diam. pin hole	1 in.*	1 in.*	1 in.*	1 in.*
Depth ,,	3⅝ ,,	3¾ ,,	5½ ,,	3 11/16 ,,



No. 2021.



No. 2033.

	No. 2028.	No. 2027.	No. 2008.	No. 2036.
Diam.	7⅛ in.	8⅛ in.	5⅝ in.	5⅝ in.
Height	7¼ ,,	7⅜ ,,	4½ ,,	4 11/16 ,,
Top groove	1 ,,	⅛ ,,	⅝ ,,	½ ,,
Side ,,	½ ,,	⅝ ,,	½ ,,	½ ,,
Wt. packed in bbl.	8 lbs.	9 lbs.	3 lbs.	3 lbs.
No. per bbl.	20	14	65	65
Test volt.	75000	75000	50000	50000
Line ,,	28000	28000	15000	15000
Rain test	52000	56000	25000	25000
Diam. pin hole	1 in.*	1 in.*	1 in.*	1 in.*
Depth ,,	5⅝ ,,	5⅝ ,,	3¼ ,,	3⅛ ,,



No. 2028.



No. 2008.
,, 2027.
,, 2036.

	No. 2000.	No. 2011.	No. 2012.
Diam.	7⅛ in.	8¼ in.	9 in.
Height	7 ,,	8¾ ,,	8¾ ,,
Top groove	¾ ,,	⅞ ,,	⅞ ,,
Side ,,	½ ,,	¾ ,,	¾ ,,
Wt. packed in bbl.	6 lbs.	8 lbs.	10 lbs.
No. per bbl.	26	20	16
Test volt.	70000	80000	90000
Line ,,	25000	33000	35000
Rain test	48000	54000	65000
Diam. pin hole	1 in.*	1 in.*	1 in.*
Depth ,,	5½ ,,	6¾ ,,	7 ,,



No. 2000.
,, 2011.
,, 2012.



No. 2003.
,, 2016.
,, 2018.

	No. 2003.	No. 2016.	No. 2018.
Diam.	9¾ in.	10⅛ in.	8¼ in.
Height	10¼ ,,	9½ ,,	7¼ ,,
Top groove	1 ,,	¾ ,,	⅞ ,,
Side ,,	¾ ,,	¾ ,,	¾ ,,
Wt. packed in bbl.	15½ lbs.	15½ lbs.	8 lbs.
No. per bbl.	10	10	20
Test volt.	95000	95000	70000
Line ,,	40000	40000	27500
Rain test	60000	60000	52000
Diam. pin hole	1 in.*	1 in.*	1 in.*
Depth ,,	8⅜ ,,	7⅝ ,,	5½ ,,

* Or 1⅜ inch.

INSULATORS, Porcelain.

High Potential Porcelain Insulators
(Continued).



No. 3007.
,, 3013.



No. 3008.
,, 3009.
,, 3026.
,, 3032.

	No. 3007.	No. 3013.	No. 3008.	No. 3009.
Diam.	6¾ in.	5¾ in.	8⅝ in.	8⅝ in.
Height	5¾ ,,	4¾ ,,	7⅜ ,,	9 ,,
Top groove	¾ ,,	⅝ ,,	¾ ,,	¾ ,,
Side ,,	½ ,,	¾ ,,	⅝ ,,	⅞ ,,
Wt. packed in bbl.	5½ lbs.	3¾ lbs.	10⅓ lbs.	12 lbs.
No. per bbl.	35	50	16	12
Test volt	70000	50000	85000	90000
Line ,,	25000	20000	33000	36000
Rain test	47000	43000	62000	62000
Diam. pin hole	1 in.*	1 in.*	1 in.*	1 in.*
Depth ,,	4 ,,	3¾ ,,	5½ ,,	7¼ ,,



No. 3017.



No. 3027.

	No. 3026.	No. 3032.	No. 3017.	No. 3027.
Diam.	8½ in.	8½ in.	8⅜ in.	9 in.
Height	8¼ ,,	8¼ ,,	9 ,,	9 ,,
Top groove	¾ ,,	¾ ,,	¾ ,,	¾ ,,
Side ,,	¾ ,,	¾ ,,	⅞ ,,	½ ,,
Wt. packed in bbl.	11 lbs.	14 lbs.	15 lbs.	14½ lbs.
No. per bbl.	15	12	10	10
Test volt	85000	85000	90000	95000
Line ,,	35000	37500	38000	40000
Rain test	65000	66000	62000	75000
Diam. pin hole	1 in.*	1 in.*	1 in.*	1 in.*
Depth ,,	6 ,,	6 ,,	7¼ ,,	7¼ ,,



No. 3030.



No. 3006.
,, 3011.
,, 3012.

	No. 3030.	No. 3006.	No. 3011.	No. 3012.
Diam.	9 in.	8 in.	8 in.	9 in.
Height	9⅜ ,,	7¾ ,,	9 ,,	9 ,,
Top groove	¾ ,,	¾ ,,	¾ ,,	¾ ,,
Side ,,	½ ,,	⅝ ,,	¾ ,,	¾ ,,
Wt. packed in bbl.	16 lbs.	7½ lbs.	9¾ lbs.	12 lbs.
No. per bbl.	9	25	15	12
Test volt	95000	80000	86000	90000
Line ,,	42000	30000	33000	40000
Rain test	76000	60000	62000	68000
Diam. pin hole	1 in.*	1 in.*	1 in.*	1 in.*
Depth ,,	7⅝ ,,	5½ ,,	6½ ,,	7¼ ,,



No. 3033.



No. 3018.
,, 3020.
,, 3024.

	No. 3033.	No. 3018.	No. 3020.	No. 3024.
Diam.	12 in.	11 in.	12 in.	12 in.
Height	12¼ ,,	11 ,,	12⅛ ,,	13 ,,
Top groove	1 ,,	1 ,,	1 ,,	1 ,,
Side ,,	¾ ,,	⅞ ,,	¾ ,,	¾ ,,
Wt. packed in bbl.		20 lbs.		
No. per bbl.		6		
Wt., crated, each,	30 lbs.		27 lbs.	30 lbs.
No. per crate	3		3	3
Test volt	120000	110000	120000	120000
Line ,,	50000	44000	50000	55000
Rain test	93000	90000	92000	96000
Diam. pin hole	1 in.*	1 in.*	1 in.*	1 in.*
Depth ,,	9¾ ,,	8⅝ ,,	9¾ ,,	10⅝ ,,



No. 3015.
,, 3016.



No. 3004.
,, 3025.

	No. 3015.	No. 3016.	No. 3004.	No. 3025.
Diam.	14¼ in.	17½ in.	14½ in.	14½ in.
Height	15 ,,	20 ,,	19 ,,	20 ,,
Top groove	⅝ ,,	¾ ,,	1½ ,,	1½ ,,
Side ,,	⅞ ,,	⅝ ,,	1 ,,	1 ,,
Wt., crated, each,	36 lbs.	75 lbs.	70 lbs.	70 lbs.
No. per crate	3	2	2	2
Test volt	120000	150000	150000	150000
Line ,,	66000	80000	80000	80000
Rain test	140000	190000	154000	154000
Diam. pin hole	1 in.†	1¾ in.	1 in.†	1 in.†
Depth ,,	11¾ ,,	16½ ,,	16½ ,,	16½ ,,

* Or 1⅜ inch. † Or 1¼ inch.



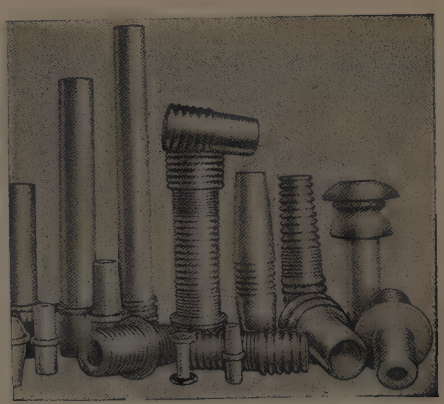
No. 1039. No. 2030.



No. 1023. No. 1016.
,, 1014.
,, 1015.
,, 1021.
,, 1029.
,, 1044.



Wall Entrance Flange.
No. 2022.
,, 2023.
,, 2024.
,, 2025.
,, 2037.



Tubes and Bushings.

INSULATORS, Porcelain.

High Potential Porcelain Insulators
(Continued).

	No. 1039.	No. 2030.
Diam.	3⅛ in.	4 in.
Height	3⅜ ,,	5 ,,
Side groove	⅜ ,,	¾ ,,
Wt. packed in bbls.	1½ lbs.	2½ lbs.
No. per bbl.	150	70
Diam. pin hole	1 in.	1 in.
Depth ,,	2½ ,,	3⅛ ,,

Porcelain telephone insulators similar in shape to the standard glass insulators can be furnished if desired.

	No. 1023.	No. 1016.
Diam.	8 in.	7¼ in.
Height	6½ ,,	7¾ ,,
Wt. packed in bbls.	14½ lbs.	12 lbs.
No. per bbl.	15	16
Test volt.	50000	50000
Line ,,	15000	20000
Rain test	37000	39000
Diam. pin hole	2½ in.	1⅜ in.
Depth ,,	through	through

The Strain insulators listed below are similar in shape to the No. 1016 with the exception of the centre groove which is omitted.

	No. 1014.	No. 1015.
Diam.	8 in.	7 in.
Height	12 ,,	7½ ,,
Wt. packed in bbls.	18 lbs.	11 lbs.
No. per bbl.	9	18
Test volt.	70000	50000
Line ,,	30000	15000
Rain test	50000	39000
Diam. pin hole	2¼ in.	1⅝ in.

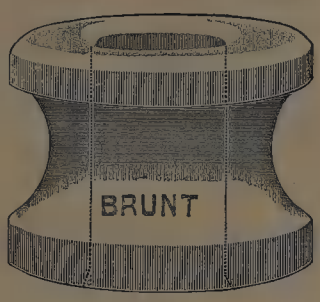
	No. 1021.	No. 1029.	No. 1044.
Diam.	10⅜ in.	6 in.	8 in.
Height	12 ,,	6⅜ ,,	10 ,,
Wt. packed in bbls.	30 lbs.	8 lbs.	17 lbs.
No. per bbl.	6	25	10
Test volt.	90000	50000	60000
Line ,,	35000	10000	23000
Rain test	55000	25000	45000
Diam. pin hole	2¼ in.	1 9/16 in.	2 3/16 in.

	No. 2022.	No. 2023.
Diam. flange	14 in.	12 in.
Diam. bushing	5⅛ ,,	5⅛ ,,
Length bushing	10½ ,,	10½ ,,
Hole in bushing	1¼ ,,	1¼ ,,
Wt. packed, complete	22 lbs.	21 lbs.
Test volt., complete	75000	70000
Line ,,	50000	40000

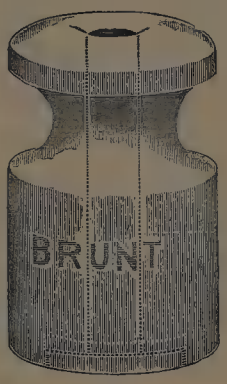
	No. 2024.	No. 2025.	No. 2037.
Diam. flange	17½ in.	14 in.	24 in.
Diam. bushing	6½ ,,	6½ ,,	7½ ,,
Length bushing	10½ ,,	10½ ,,	15½ ,,
Hole in bushing	2½ ,,	2½ ,,	3½ ,,
Wt. packed, complete,	40 lbs.	35 lbs.	36 lbs.
Test volt., complete	90000	80000	100000
Line ,,	60000	55000	70000

Tubes for High Voltage.

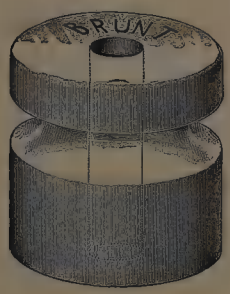
We also make a complete line of highly vitrified tubes with standard heads, of all lengths up to 48 inches long, with all size holes, these tubes being very highly vitrified and thoroughly glazed, to be used in entrance flanges and bushings or other work around power houses.



No. 0.



No. 1.



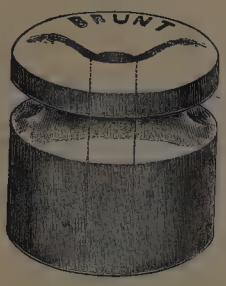
No. 2.



No. 3.



No. 3 W. G.



No. 3½.



No. 4.



No. 4½.



No. 5.



Pony No. 5.



No. 5½.

INSULATORS, Porcelain (Continued).

Standard Porcelain Insulators.

Standard No. 0.....per 1,000, $146.68
Height, 2¼ inches.
Diameter, 3 inches.
Hole, 1¼ inches.
Groove, 1 inch.
Standard package, 350.

Standard No. 1.....per 1,000, 88.00
Height, 3 inches.
Diameter, 2⅛ inches.
Hole, 7/16 inch.
Groove, ¾ inch.
Standard package, 650.

Standard No. 2.....per 1,000, 41.34
Height, 2 inches.
Diameter, 2 inches.
Hole, ½ inch.
Groove, ½ inch.
Standard package, 850.

Standard No. 3. (B)...per 1,000, 34.68
Height, 1¾ inches.
Diameter, 2 inches.
Hole, 7/16 inch.
Groove, 7/16 inch.
Standard package, 1,000.

Standard No. 3 W. G....per 1,000, 34.68
Height, 1¾ inches.
Diameter, 2 inches.
Hole, 7/16 inch.
Groove, ¾ inch.
Standard package, 1,000.

Standard No. 3½.....per 1,000, 34.68
Height, 2 inches.
Diameter, 2 inches.
Hole, 7/16 inch.
Groove, 7/16 inch.
Standard package, 1,000.

Standard No. 4. (A)...per 1,000, 12.50
Height, 1 11/16 inches.
Diameter, 1½ inches.
Hole, ⅜ inch.
Groove, ⅜ inch.
Standard package, 2,000.

Standard No. 4½.....per 1,000, 14.00
Height, 1⅞ inches.
Diameter, 1½ inches.
Hole, ⅜ inch.
Groove, 7/16 inch.
Standard package, 2,000.

Standard No. 5. (C)....per 1,000, 8.25
Height, 1¼ inches.
Diameter, 1 inch.
Hole, ¼ inch.
Groove, 5/16 inch.
Standard package, 5,000.

Pony No. 5.....per 1,000, 10.68
Height, 15/16 inch.
Diameter, 13/16 inch.
Hole, 7/32 inch.
Groove, ⅜ inch.
Standard package, 5,000.

Standard No. 5½.....per 1,000, 9.00
Height, 1 9/16 inches.
Diameter, 1 inch.
Hole, ¼ inch.
Groove, 5/16 inch.
Standard package, 5,000.

(*Continued on next page.*)

INSULATORS, Porcelain.

Standard Porcelain Insulators (Continued).



No. 6.

Standard No. 6. (E2) ..... per 1,000, $9.00
Height, $\frac{7}{8}$ inch.
Diameter, $1\frac{13}{16}$ inch.
Hole, $\frac{7}{32}$ inch.
Groove, $\frac{1}{4}$ inch.
Standard package, 5,000.


No. 7.

Standard No. 7. (E1) ..... per 1,000, 9.00
Height, $\frac{3}{4}$ inch.
Diameter, $\frac{7}{8}$ inch.
Hole, $\frac{1}{4}$ inch.
Groove, $\frac{7}{16}$ inch.
Standard package, 5,000.


No. 7½.

Standard No. 7½ ..... per 1,000, 9.00
Height, $\frac{9}{16}$ inch.
Diameter, $\frac{3}{16}$ inch.
Hole, $\frac{3}{16}$ inch.
Groove, $\frac{5}{16}$ inch.
Standard package, 5,000.


No. 8.

Standard No. 8. (E3) ..... per 1,000, 9.00
Height, $\frac{15}{16}$ inch.
Diameter, 1 inch.
Hole, $\frac{1}{4}$ inch.
Groove, $\frac{5}{16}$ inch.
Standard package, 5,000.

Standard No. 9. (D) ..... per 1,000, 9.00
Height, $1\frac{1}{8}$ inches.
Diameter, $\frac{5}{8}$ inch.
Hole, $\frac{3}{16}$ inch.
Groove, $\frac{3}{16}$ inch.
Standard package, 5,000.


No. 9.

Standard No. 10 ..... per 1,000, 20.00
Height, $1\frac{3}{4}$ inches.
Diameter, $1\frac{5}{8}$ inches.
Hole, $\frac{3}{8}$ inch.
Groove, $\frac{3}{8}$ inch.
Standard package, 2,000.

Standard No. 10½ ..... per 1,000, 20.00
Height, $1\frac{7}{8}$ inches.
Diameter, $1\frac{1}{2}$ inches.
Hole, $\frac{3}{8}$ inch.
Groove, $\frac{3}{8}$ inch.
Standard package, 2,000.



No. 10.

Standard No. 11 ..... per 1,000, 16.00
Height, $\frac{11}{16}$ inch.
Diameter, $1\frac{1}{8}$ inches.
Hole, $\frac{1}{4}$ inch.
Groove, $\frac{1}{2}$ inch.
Standard package, 3,000.

Standard No. 12 ..... per 1,000, 18.68
Height, $\frac{13}{16}$ inch.
Diameter, $1\frac{3}{8}$ inches.
Hole, $\frac{5}{16}$ inch.
Groove, $\frac{9}{16}$ inch.
Standard package, 3,000.



No. 11.

Standard No. 13 ..... per 1,000, 18.68
Height, $\frac{3}{4}$ inch.
Diameter, $1\frac{5}{16}$ inches.
Hole, $\frac{1}{8}$ inch.
Groove, $\frac{5}{8}$ inch.
Standard package, 3,000.

Standard No. 14 ..... per 1,000, 10.68
Height, $\frac{3}{4}$ inch.
Diameter, $\frac{7}{8}$ inch.
Hole, $\frac{1}{8}$ inch.
Groove, $\frac{3}{16}$ inch.
Standard package, 3,000.


No. 12.

(*Continued on next page.*)



No 15.



No. 19.



No. 20.



No. 21.



No. 22.



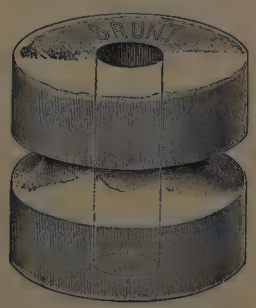
No. 23.



No. 24.



No. 25.



No. 26.

INSULATORS, Porcelain.

Standard Porcelain Insulators (Continued).

Standard No. 15.....per 1,000, $32.00
Height, 1 5/16 inches.
Diameter, 1¾ inches.
Hole, 7/16 inch.
Groove, ½ inch.
Standard package, 1,400.

Standard No. 16.....per 1,000, 26.68
Height, 1 inch.
Diameter, 1¾ inches.
Hole, ½ inch.
Groove, ⅜ inch.
Standard package, 500.

Standard No. 17.....per 1,000, 26.68
Height, 1¾ inches.
Diameter, 1 11/16 inches.
Hole, ½ inch.
Standard package, 500.

Standard No. 18.....per 1,000, 18.68
Height, 1 inch.
Diameter, 1⅝ inches.
Hole, 7/16 inch.
Standard package, 500.

Standard No. 19.....per 1,000, 41.34
Height, 1⅞ inches.
Diameter, 2 inches.
Hole, 7/16 inch.
Groove, ½ inch.
Standard package, 500.

Standard No. 20.....per 1,000, 42.68
Height, 2 inches.
Diameter, 2 inches.
Hole, ⅜ inch.
Groove, ⅝ inch.
Standard package, 1,000.

Standard No. 21. (Bx)..per 1,000, 106.68
Height, 2⅞ inches.
Diameter, 2 inches.
Hole, ½ inch.
Groove, 9/16 inch.
Standard package, 500.

Standard No. 22. (Victor).per 1,000, 42.68
Height, 1⅝ inches.
Diameter, 2⅓ inches.
Hole, 1 inch.
Groove, 5/16 inch.
Standard package, 1,300.

Standard No. 23. (Xx)...per 1,000, 29.34
Height, 1½ inches.
Diameter, 1½ inches.
Hole, ⅜ inch.
Groove, 1 inch.
Standard package, 2,000.

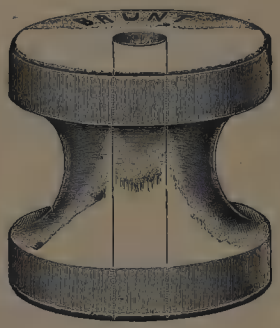
Standard No. 24. (Z).....per 1,000, 41.34
Height, 1¾ inches.
Diameter, 1⅞ inches.
Hole, 7/16 inch.
Groove, ⅝ inch.
Standard package, 1,000.

Standard No. 25. (F) ....per 1,000, 73.34
Height, 1½ inches.
Diameter, 2½ inches.
Hole, 11/16 inch.
Groove, 1 1/16 inches.
Standard package, 750.

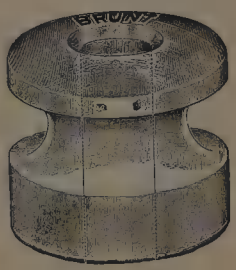
Standard No. 26.....per 1,000, 74.68
Height, 2 inches.
Diameter, 2¼ inches.
Hole, ⅝ inch.
Groove, 9/16 inch.
Standard package, 800.

(*Continued on next page.*)

INSULATORS, Porcelain.



No. 29.



No. 30.



No. 33.



No. 34.



No. 35.



No. 36.

Standard Porcelain Insulators (Continued).

Standard No. 27 . . . . . per 1,000, $106.68
Height, $2\frac{7}{16}$ inches.
Diameter of base, 3 inches.
Standard package, 500.

Standard No. 28 . . . . . per 1,000, 106.68
Height, $2\frac{5}{8}$ inches.
Diameter of base, 3 inches.
Groove, $\frac{3}{8}$ inch.
Standard package, 500.

Standard No. 29 . . . . . per 1,000, 100.00
Height, $2\frac{3}{8}$ inches.
Diameter, $2\frac{1}{2}$ inches.
Hole, $\frac{1}{2}$ inch.
Groove, $1\frac{3}{8}$ inches.
Standard package, 400.

Standard No. 30 . . . . . per 1,000, 41.34
Height, $1\frac{11}{16}$ inches.
Diameter, $1\frac{15}{16}$ inches.
Hole, $\frac{11}{16}$ inch.
Groove, $\frac{3}{4}$ inch.
Standard package, 1,000.

Standard No. 31 . . . . . per 1,000, 18.68
Height, 1 inch.
Diameter, $1\frac{3}{4}$ inches.
Hole, $\frac{5}{8}$ inch.
Groove, $\frac{9}{16}$ inch.
Standard package, 1,500.

Standard No. 32 . . . . . per 1,000, 400.00
Height, 3 inches.
Diameter, $4\frac{9}{16}$ inches.
Hole, $\frac{11}{16}$ inch.
Groove, $1\frac{7}{8}$ inches.
Standard package, 250.

Standard No. 33(Security), per 1,000, 33.34
Height, $1\frac{7}{8}$ inches.
Diameter, $1\frac{3}{8}$ inches.
Hole, $\frac{5}{16}$ inch.
Groove, $\frac{5}{16}$ inch.
Standard package, 1,500.

Standard No. 34 . . . . . per 1,000, 73.34
Height, $1\frac{7}{8}$ inches.
Diameter, $2\frac{3}{8}$ inches.
Hole, $\frac{5}{8}$ inch.
Groove, $1\frac{3}{8}$ inches.
Standard package, 250.

Standard No. 35 . . . . . per 1,000, 120.00
Height, $1\frac{1}{2}$ inches.
Diameter, $1\frac{1}{2}$ inches.
Standard package, 250.

Standard No. 36 . . . . . per 1,000, 36.00
Height, $1\frac{3}{4}$ inches.
Diameter; $1\frac{3}{4}$ inches.
Hole, $\frac{1}{2}$ inch.
Groove, $\frac{3}{4}$ inch.
Standard package, 1,800.

Standard No. 37 . . . . . per 1,000, 46.66
Height, $1\frac{1}{2}$ inches.
Diameter, $1\frac{3}{4}$ inches.
Hole, $\frac{1}{2}$ inch.
Groove, $\frac{1}{2}$ inch.
Standard package, 1,200.

Standard No. 38 . . . . . per 1,000, 240.00
Height, $4\frac{1}{8}$ inches.
Diameter, $2\frac{3}{4}$ inches.
Standard package, 250.

(Continued on next page.)

INSULATORS, Porcelain.

Standard Porcelain Insulators (Continued).



No 39.

Standard No. 39 .....per 1,000, $73.34
Height, $1\frac{3}{4}$ inches.
Diameter, $2\frac{1}{2}$ inches.
Hole, $\frac{3}{4}$ inch.
Groove, $1\frac{3}{8}$ inches.
Standard package, 500.

Standard No. 40.....per 1,000, 44.00
Height, $1\frac{3}{16}$ inches.
Diameter, $2\frac{1}{2}$ inches.
Hole, $\frac{5}{8}$ inch.
Standard package, 250.



No. 42.

Standard No. 41.....per 1,000, 44.00
Height, $1\frac{1}{4}$ inches.
Diameter, 2 inches.
Hole, $\frac{3}{8}$ inch.
Groove, $\frac{1}{2}$ inch.
Standard package, 250.

Standard No. 42.....per 1,000, 320.00
Height, $4\frac{1}{8}$ inches.
Diameter, $2\frac{3}{4}$ inches.
Standard package, 250.



No. 43.

Standard No. 43.....per 1,000, 300.00
Height, $4\frac{1}{8}$ inches.
Diameter, $2\frac{5}{8}$ inches.
Standard package, 250.

Standard No. 44.....per 1,000, 320.00
Height, $3\frac{1}{2}$ inches.
Diameter, $3\frac{3}{4}$ inches.
Standard package, 250.

Standard No. 45.....per 1,000, 18.68
Height, $\frac{3}{4}$ inch.
Diameter, $1\frac{1}{4}$ inches.
Hole, $\frac{5}{16}$ inch.
Groove, $\frac{5}{16}$ inch.
Standard package, 2,500.

Standard No. 46.....per 1,000, 26.68
Height, 1 inch.
Diameter, $1\frac{1}{4}$ inches.
Hole, $\frac{5}{16}$ inch.
Groove, $\frac{9}{16}$ inch.
Standard package, 2,000.

Standard No. 47.....per 1,000, 32.00
Height, $1\frac{1}{4}$ inches.
Diameter, $1\frac{3}{4}$ inches.
Hole, $\frac{7}{16}$ inch.
Groove, $\frac{7}{16}$ inch.
Standard package, 1,500.



No. 48.

Standard No. 48.....per 1,000, 73.34
Height, $1\frac{1}{2}$ inches.
Diameter, $2\frac{1}{2}$ inches.
Hole, $\frac{5}{8}$ inch.
Groove, $\frac{3}{4}$ inch.
Standard package, 1,000.

(*Continued on next page.*)

INSULATORS, Porcelain.

Standard Porcelain Insulators (Continued).

	Height.	Diam.	Hole.	Groove.	Std. Pkg.	List per 1,000.
Standard No. 49	1½	2¾	11/16	15/16	500	$73.34
,, ,, 50	2	2⅞	⅞	1⅞	350	80.00
,, ,, 51	3¼	2¼	½	2½	250	160.00
,, ,, 52	3½	3⅛	½	1¼	250	300.00
,, ,, 53	2¾	4¼	⅞	1⅞	200	400.00
,, ,, 54	3¼	4⅞	⅞	2¾	200	500.00

B. & D. Porcelain Knob Insulators.

Regular Style.



Regular Style B. & D. Insulator.

No. 1429. For wire up to No. 10 . . . . per 1,000, $26.68
,, 1430. ,, ,, ,, ,, ,, 4 . . . . ,, 28.50
,, 1431. ,, ,, ,, ,, ,, 0 . . . . ,, 40.00

Style A.

This style is 1 inch from wire to bottom of knob.

No. 1729. For wire up to No. 10 . . . . per 1,000, $33.34
,, 1730. ,, ,, ,, ,, ,, 4 . . . . ,, 35.00
,, 1731. ,, ,, ,, ,, ,, 0 . . . . ,, 50.00

General Electric Knob Insulators.



G. E. Knobs.

G. E. porcelain knobs are designed for supporting single conductors, each knob being formed with slots to accommodate any one of four sizes of wire. The knobs are made in two depths, those with the deep back being intended for concealed house wiring; and each style is made in two sizes, the larger of which is suitable for wire up to ⅝ inch and the smaller for wire up to ⅜ inch in diameter.

	Std. Pkg.	List per 1,000.
No. 9419. Complete knob, for single wire up to ⅜ in. diam., holding wire 1 in. from wall	500	$32.50
No. 9420. Complete knob, for single wire up to ⅝ in. diam., holding wire 1 in. from wall	500	45.00
No. 9352. Complete knob, for single wire up to ⅜ in. diam. holding wire 9/16 in. from wall	500	28.00
No. 6580. Complete knob, for single wire up to ⅝ in. diam., holding wire 9/16 in. from wall	500	45.00

INSULATORS, Rope.

Cutter's High Voltage Rope Insulator.



Cutter's High Voltage Rope Insulator.

A high voltage insulator, with an eye above and below for looping into wire hoisting ropes. (We advise all users of wire hoisting ropes to ground the lower end of the rope so as to positively prevent accidents to any one touching the rope. Then the insertion of Cutter's high voltage rope insulator higher up on the rope will avoid leakage.)

No. S-1631. Complete . . . . . net, each, $ .45
,, S-1632. Same, with clamp for wire rope, net, each, .55

Cutter's Wire Rope Insulator.

Looped into the hoisting rope just outside the pole pulley; insulates the lamp end from the end within reach of the public. Made of steel with hard rubber insulation and protecting ferrules.

No. S-1633. Cutter's wire rope insulator, net, each, $ .20

Cutter's Loop Break.



Loop Break.

A larger form of wire rope insulator for arc circuits.

No. S-1634. Cutter's loop break . . . . . net, each, $ .28



No. 19410.



No. 19491.



No. 34870.



The Macallen Section Insulator.

INSULATORS, Section (see also Frogs and Crossings).

G. E. Form L Section Insulators.

The strength of the Form L section insulator has been approximately doubled by a change in its construction. The rivets fastening the end tongues to the wooden beam pass horizontally through the neutral fibres of the beam, instead of vertically, thus cutting away none of its effective strength.

The clamps for securing the trolley wire are similar to those of the Form G frogs and crossings.

No. 19410. Section insulator, Form L, for Nos. 0 and 00 wire, round or grooved, each, $10.00

No. 21456. Wooden runway for 19410, each, .25

No. 19491. Section insulator, Form L, for wires up to and including No. 0000, round or grooved.... ....each, 12.50

No. 21456. Wooden runway for No. 19491 .....each, .25

G. E. Automatic Section Insulator.

This device is a combined section insulator and automatic section switch, and, while it is designed especially for use in mine tramway work, may often be used to advantage on spur tracks in surface work where it is desirable to cut out the spur section after the car has run back on to the main line.

The switch blade is operated by the trolley wheel, and is permanently connected to the feeder or to the main line trolley wire.

This device is adapted for use with round or grooved wire up to and including No. 0000.

No. 34870. Automatic section insulator, Form L, for wire up to and including 0000, round or grooved, each, $17.00

No. 34871. Switch clips with screws, per 100, 7.00

No. 34872. Locking spring.... ,, 10.00

Macallen Section Insulators.

No. 2920. 2-in. side bars, 0 and 00 round wire .....each, $10.00

No. 2921. 2-in. side bars, 00 grooved wire .....each, 10.00

No. 2922. 2½-in. side bars, 00 round wire .....each, 11.25

No. 2923. 2½-in. side bars, 00 grooved wire .....each, 11.25

No. 2924. 3-in. side bars, 00 and 000 round wire .....each, 12.50

No. 2925. 3-in. side bars, 00 and 000 grooved wire .....each, 12.50

No. 2926. Heavy pattern, 0000 round wire .....each, 15.00

No. 2927. Heavy pattern, 0000 grooved wire .....each, 15.00

Macallen Removable End Section Insulator.

This form is designed for use where the wear on the trolley wire is so great that it frequently wears out and it becomes necessary to put in new trolley wire. The advantage

(*Continued on next page.*)



No. 2930.



No. 2935.



No. 2942.



Fibre Runner.



Span Insulator No. 2092.



Spool Insulator.

INSULATORS, Section.

Macallen Removable End Section Insulator (Continued).

of this form is that the linemen can be provided with extra end piece, which can be made fast to the new trolley wire so that when they come to erect it, they can remove the bolts which secure the removable end to the section insulator, take out the old one, and place the new one in position, thus saving considerable delay to traffic.

No. 2930. 2-in. side bars, 0 and 00 round wire .....each, $12.50
No. 2931. 2½-in. side bars, 00 round wire .....each, 14.00
No. 2932. 2½-in. side bars, 00 grooved wire .....each, 14.00

Macallen Double Trolley Wire Section Insulators.

For 0 and 00 wire 6 inches apart.

No. 2935. 0 and 00 round wire...each, $22.50
,, 2936. 00 grooved wire..... ,, 22.50
,, 2937. 000 and 0000 round or grooved wire. .....each, 25.00

For 00 to 0000 wire 4 inches apart.

No. 2942. 00 to 0000 round or grooved wire.....each, $25.00

In ordering No. 2942, please specify the wire to be used.

Extra Fibre Runners.

No. 2947. For section insulators, Nos. 2920, 2925, 2930 to 2936, 2942 .....each, $ .50
No. 2948. For section insulators, Nos. 2926, 2927, 2937 ...each, 60

Philadelphia Section Insulators.

No. 518. Bronze metal and prepared wood for 0 and 00 wire, each, $10.00
No. 1346. Bronze metal and prepared wood for 000 and 0000 wire .....each, 12.50

INSULATOR, Span.

Span Insulators.

Porcelain brown glaze span insulators for insulation of strain wire in pole line construction work. Better and cheaper than glass or mica.

Style A (cylindrical).

No. 2092. 2½ x 2¼ for strains up to 5,000 lbs.. .....per 1,000, $50.00
No. 2103. 3¼ x 2⅝ for strains up to 8,000 lbs .....per 1,000, 75.00

Style B (egg-shaped).

No. E-2092. 2½ x 2¼ for strains up to 5,000 lbs.. ....per 1,000, $50.00
No. E-2103. 3¼ x 2⅝ for strains up to 8,000 lbs .....per 1,000, 75.00
No. E-2277. 4⅞ x 3 7/16 for strains up to 12,000 lbs.. ...per 1,000, 240.00

INSULATORS, Spool.

Anderson's Spool Insulator.

Straight edge, Ætna insulation.

	Diam.	Ht.	Gr've.	Hole.	Per 100.
No. 1121.....	2⅝	1⅞	1½	9/16	$50.00
,, 1122.....	2½	1 11/16	1 3/16	11/16	50.00

Taper edge, Ætna insulation.

	Diam.	Ht.	Gr've.	Hole.	Per 100.
No. 1123.....	2¼	2⅛	13/16	⅝	$50.00
,, 1124.....	2	1¾	19/32	9/16	45.00
,, 1125.....	2 5/16	1½	19/32	9/16	45.00
,, 1126.....	2	1½	19/32	9/16	45.00

INSULATORS, Strain (see Insulators, span).

Giant Strain Insulators.

In the giant strain insulator the insulating material under stress is exclusively sheet mica *under compression*, and the limit of its mechanical strength is the strength of the metal parts without regard to temperature or other service conditions. Metal parts are galvanized malleable iron.



No. 42640.

2-Inch.

No. 42640.	With standard eyes	per 100,	$60.00
,, 42641.	,, ,, eye and clevis	,,	70.00
,, 42642.	,, two large eyes	,,	80.00
,, 42643.	,, one large eye and one standard eye	,,	70.00
,, 42644.	,, standard clevis at each end	,,	80.00
,, 42645.	,, ,, ,, and large eye	,,	80.00

2⅝-Inch.



No. 42649.

No. 42646.	With standard eyes	per 100,	$95.00
,, 42647.	,, one large eye and one standard eye	,,	110.00
,, 42648.	,, two large eyes	,,	125.00
,, 42649.	,, standard eye and clevis	,,	110.00
,, 42650.	,, large clevis and standard eye	,,	110.00
,, 42651.	,, standard clevis at each end	,,	125.00
,, 42652.	,, large clevis at each end	,,	125.00
,, 42653.	,, ,, eye and extra large clevis	,,	125.00



No. 27378.

Dimensions.

Standard eye: inside diameter, $\frac{9}{16}$ inch; outside diameter, $1\frac{5}{16}$ inches.
Large eye: inside diameter, $\frac{13}{16}$ inch; outside diameter, $1\frac{13}{16}$ inches.
Standard clevis, spread, $\frac{9}{16}$ inch; diameter of through bolt, $\frac{3}{8}$ inch.
Large clevis, spread, $\frac{11}{16}$ inch; diameter of through bolt, $\frac{1}{2}$ inch.
Extra large clevis: spread, $\frac{13}{16}$ inch; diameter of through bolt, $\frac{5}{8}$ inch.

Globe Strain Insulators with Eyes.



No. 27380.

No. 267M.	2-inch gal. mall. castings	per 100,	$50.00
,, 64.	2 ,, bronze ditto	,,	62.50
,, 27378.	2¼ ,, gal. mall. castings	,,	55.00
,, 16399.	2¼ ,, bronze ditto	,,	69.00
,, 268M.	2½ ,, gal. mall. castings	,,	60.00
,, 34.	2½ ,, bronze ditto	,,	75.00
,, 27380.	2¾ ,, gal. mall. castings	,,	70.00
,, 17221.	2¾ ,, bronze ditto	,,	87.50
,, 269M.	3 ,, gal. mall. castings	,,	112.50
,, 136.	3 ,, bronze ditto	,,	141.00



No. 27379.

Globe Strains with Clevis.

No. 273M.	2-inch gal. mall. castings	per 100,	$60.00
,, 65.	2 ,, bronze ditto	,,	75.00
,, 27379.	2¼ ,, gal. mall. castings	,,	65.00
,, 16400.	2¼ ,, bronze ditto	,,	81.00
,, 247M.	2½ ,, gal. mall. castings	,,	70.00
,, 35.	2½ ,, bronze ditto	,,	87.50
,, 27381.	2¾ ,, gal. mall. castings	,,	85.00
,, 17222.	2¾ ,, bronze ditto	,,	106.00



No. 27381.



No. 16727.



No. 37488.



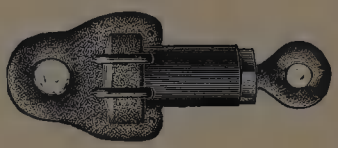
No. 37489.



No. 36313.



No. 17030.



No. 681M.



No. 1560.

INSULATORS, Strain (Continued).

G. E. Wooden Strain Insulators.

The wooden strain insulators are made from selected hickory, split into sticks before being turned, to insure straight grain, and treated by the "vacuum compound process" to exclude moisture.

This process insures thorough impregnation of every portion of the wood, and in addition to preventing the absorption of moisture greatly increases its strength and toughness.

No.		Per 100.
16727.	Wooden strain insulator, 1 in. diam., 9½ in. between centres,	$42.50
37488.	Wooden strain insulator, 1¼ in. diam., 9½ in. between centres,	55.00
37489.	Wooden strain insulator, 1 in. diam., 20 in. between centres,	55.00
36313.	Wooden strain insulator, 1¼ in. diam., 20 in. between centres,	75.00
1363.	Wooden strain insulator, 1 in. diam., with clevis.....	52 50

G. E. Wooden Goose Neck Insulator.

This insulator is similar to Cat. No. 16727, except that one end is tapped to receive a goose neck or other special device.

No. 17030.	Wooden goose neck insulator, tapped ⅝ in.–11, per 100,	$50.00

Brooklyn Strain Insulators (see Turnbuckles).

No.		
681M.	Regular 3 in. take up malleable iron japanned.....per 100,	$132.50
682M.	Large size ditto ,,	250.00
416.	Regular size ditto, galvanized .per 100,	137.50
417.	Large size ditto, galvanized....per 100,	260.00
32.	Regular size ditto, bronze.....per 100,	200.00
33.	Large size ditto, bronze.....per 100,	385.00

Mammoth Brooklyn Strain Insulator.

No.		Per 100.
1222.	Bronze metal, 1½ in. eye, bolt with 1¼ in. hole.....	$1,650.00

Double Brooklyn Strain Insulators.

No.		Per 100.
1560.	Standard size, ⅝-in. eye bolts, with gal. mall. iron castings...	$262.50
1344.	Ditto, bronze castings,	390.00
1492.	Large size, ¾-in. eye bolts, with jap. mall. iron castings.....	462.50
1486.	Ditto, galvanized.....	487.50
237.	,, bronze.....	657.50



No. 734.



No. 17323.



No. 38588.



No. 38589.



No. 38590.



Form S. P.



Form C. P.

INSULATORS, Strain (Continued).

Brooklyn Strain with Clevis and Globe.

No.		Per 100.
734.	Regular size, jap. mall., with 2½-in. globe	$222.50
736.	Large size, jap. mall., with 3-in. globe	412.50
260.	Regular size, bronze, with 2½-in. globe	305.00
261.	Large size, bronze, with 3-in. globe	576.00

G. E. Insulated Turnbuckle (see also Turnbuckles, insulated).

17323.	Insulated turnbuckle, mall. iron, jap'd	$132.50
27382.	Insulated turnbuckle, mall. iron, galv'd	137.50
17223.	Insulated turnbuckle, composition	200.00
40801.	Malleable iron, japanned, ¾-in. bolt	250.00
40802.	Malleable iron, galvanized, ¾-in. bolt	260.00
48003.	Composition, ¾-in. bolt	385.00

INSULATORS, Swinging (see Insulators, tree).

INSULATORS, Third Rail.

G. E. Third Rail Insulator.

No.		Approx. Wt. in Lbs.	List Price.
38588.	AE 59-A insulator for T-rails, with loose malleable iron cap, reconstructed granite insulating body and malleable iron foot fixed to body	15	$1.50
38589.	AE 85-A insulator, for T-rails, with loose malleable iron cap, vitrified clay insulating body and malleable iron foot fixed to body	13	1.35
38590.	AE 71-A insulator, for rectangular rails, reconstructed granite body, without cap or base, grooved for reception of rail and held in place on ties by angle clamps	15¾	1.25

INSULATORS, Tree.

Brodie Tree Insulators.

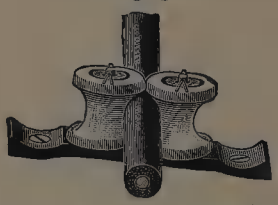
Form S. P. For No. 2 W. P. wire or smaller, has single petticoat glass insulator and drive lag screw support, net, each,	$ .25
Form C. P. For No. 2 W. P. wire or smaller, has single petticoat glass insulator and cleat support .... net, each,	.25
Form 3 S. P. For No. 2 W. P. wire or smaller, has double petticoat glass insulator and drive lag screw support, net, each,	.35
Form 3 C. P. For No. 2 W. P. wire or smaller, has double petticoat glass insulator and cleat support .... net, each,	.35



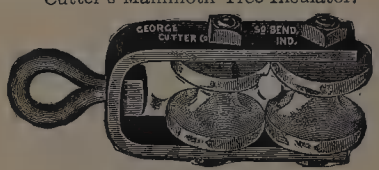
Form 2 S. P. and 4 S. P.



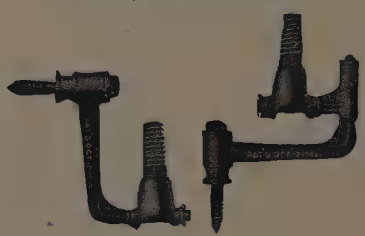
Cutter's Swinging Insulator.



Cutter's Mammoth Tree Insulator.



Cutter's Jumbo Tree Insulator.



No. 1. Dunton Tree Insulator.

Same with A-4 Attachment.



A-4 Attachment.



Same with Right Angle Lag Screw.



Right Angle Lag Screw.



G. E. Tree Insulator.

INSULATORS, Tree.

Brodie Tree Insulators (Continued).

Form 2 S. P. For conductors up to 1 inch in diameter, has double petticoat glass insulator and drive lag screw support, net, each, $ .45

Form 2 C. P. For conductors up to 1 inch in diameter, has double petticoat glass insulator and cleat support .....net, each, .45

Form 4 S. P. For 500,000 cir. mills cable, has double petticoat glass insulator and dry lag screw support.....net, each, .60

Form 4 C. P. For 500,000 cir. mills cable, has double petticoat glass insulator and cleat support .....net each, .60

Cutter's Swinging Insulator

Allows wire to move freely between the porcelain rollers without chafing the insulation.

Being hung from the loop, it is free to adapt itself to any strains, and therefore will not cramp the wire, as the bracket base tree insulators often do.

Malleable iron, takes wires up to $\frac{3}{4}$ inch in diameter.

No. S-1635. Cutter's swinging tree insulator, net, per doz., $2.00

Cutter's Mammoth Tree Insulator.

A tree insulator of the bracket type, made of wrought iron, for wires up to $1\frac{1}{4}$ inches in diameter.

No. S-1636. Cutter's mammoth tree insulator, net, per doz., $4.50

Cutter's Jumbo Tree Insulator.

A tree insulator for wires up to $1\frac{1}{4}$ inches in diameter.

No. S-1637. Cutter's Jumbo tree insulator, net, per doz., $4.50

The Dunton Tree Insulator.

The Dunton tree insulator consists of a malleable iron arm pivoted on a lag screw which is driven into the limb of the tree. On the outer end is a locust pin itself pivoted to the malleable arm, and so arranged that by the addition of a right angle attachment it may be pivoted in two planes at right angles to each other, allowing the limb of the tree to sway in any direction without injury to the wire although the latter may be rigidly attached to its insulator on the arm.

Any ordinary single, double, or triple petticoat insulator may be used.

Made in two sizes.

No. 1. For wire up to and including No. 0000..per 100, $67.50
,, 2. ,, ,, ,, ,, ,, 1,000,000 cm., per 100, 97.50
A-4 attachment (will fit either of above) ..... ,, 30.00
$\frac{1}{2}$-inch, right angle, lag screws..... ,, 18.00
$\frac{5}{8}$,, ,, ,, ,, ,, ... ,, 20.00

G. E. Porcelain Tree Insulator.

Designed primarily for tree wiring but useful for temporary wiring of all kinds as the wire may be instantly removed from the insulator by prying open the cam lock and dropping the loop.

No. 69024. Porcelain insulator with yoke and cam, (supporting prong not included)..each, $ .75
No. 69025. Porcelain insulator only..... ,, .25
,, 69026. Supporting prong only..... ,, .06

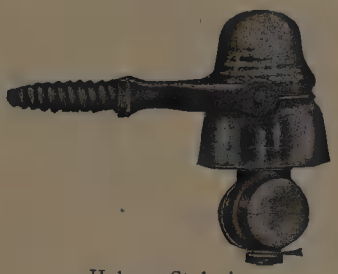
Hawken Patent Tree Insulators.

These insulators offer valuable protection against the dangers and losses which result from the abrasion of electric light and feeder wires. They are furnished in wood, in halves, saturated with a preservative compound, and are readily attached to the wire and held in place, as illustrated in the cut. Thousands in use by electric railway and lighting companies.

(*Continued on next page.*)



Hawken Tree Insulator.



Holmes, Style A.



Holmes, Style B.



No. 1.
Tree Insulator.



No. 2.
Tree Insulator.



Wheeler Tree Insulator, No. 649.

INSULATORS, Tree.

Hawken Patent Tree Insulators (Continued).

No. 1006. Size ⅜ x 12 in. long, No. 6 wire; weight, each 6 oz., per 100, $211.25
No. 1007. Size ⅜ x 18 in. long, No. 6 wire; weight, each, 8 oz.. per 100, 243.75
No. 1008. Size ⅝ x 13½ in. long, 0 wire; weight, each, 9 oz.. per 100, 269.75
No. 1009. Size ⅝ x 18 in. long, 0 wire; weight, each, 10 oz. per 100, 292.50
No. 1010. Size ¾ x 13½ in. long, 0000 wire; weight, each, 11 oz., per 100, 260.00
No. 1011. Size ¾ x 18 in. long, 0000 wire; weight, each, 15 oz. per 100, 325.00
No. 1012. Size 1¼ x 13½ in. long, 500,000 cm.; weight, each, 13½ oz., per 100, 487.50
No. 1013. Size 1¼ x 18 in. long, 500,000 cm.; weight, each, 16 oz., per 100, 503.75

Holmes Tree Insulators.

Made of malleable iron and furnished with double petticoat glass insulator. Always in an upright position regardless of the slant of tree. Current cannot leak even if wire is bare.

Can be quickly applied to tree without cutting the wire. Style A will take wire up to and including No. 0.

Style A. Holmes tree insulator, ¾ in. hole, $ .56
,, B. ,, ,, ,, 1 ,, ,, .90

Lag Screw and Loop Tree Insulators

(see also Bolts, insulated).

Malleable iron with porcelain insulation. The Style F (Standard No. 25), porcelain is most commonly used.

No. 1. Lag screw tree insulator.... each, $ .40
,, 2. Loop tree insulator..... ,, .30

Wheeler Tree Insulator.

Malleable iron casting enclosing a Victor split insulator. Suitable for No. 6 or smaller wire.

No. 649. Complete insulator..... each, $ .18
,, 649½. Iron part only..... ,, .12

For extra porcelain insulators see "Insulators, porcelain."

INSULATORS, Wire Rope (see Insulators, rope).

INSULLAC.

No. 5 Insullac.

This is a rapid-drying, transparent, insulating varnish with high non-conductive qualities. Insullac is used with excellent results by many of the larger manufacturers of electrical apparatus, and may be used for cementing mica or mica and paper. When so applied the solvent should be forced out under hydraulic pressure, between plates upon which 40 to 60 pounds steam is applied, and allowed to remain for 48 hours. This insulating material must not be thinned with anything but insullac thinner. Insullac can be furnished in any desired color. When no color is specified, orange will be furnished.

This material is used particularly to oilproof transformer coils, and is rendered black for this purpose by a specially selected colored matter.

In 1-, 2-, 5-, or 10-gallon cans .... per gal., $1.85
In barrels..... ,, 1.50

INSULLAC Thinner.

No. 6 Insullac Thinner.

This is a diluting liquid, manufactured under a secret process, and is to be used only for thinning insullac.

In 1-, 2-, 5-, or 10-gallon cans. . . . . per gal., $1.85
In barrels . . . . . ,, 1.50

INTERCHANGEABLE Pulley (see P).

IRON Arms (see A).

IRON Brackets (see B).

IRON Conduits (see C).

IRON Pipe (see P).

IRONS, see following headings:

Irons, Curling (see Heaters).
,, Flat.
,, Guard.
,, Ridge (see Brackets, iron).
,, Shoe.
,, Soldering.
,, Waffle.

IRONS, Curling (see Heaters).

IRONS, Flat.

G. E. Co.'s Electric Flat Irons.

Designed on correct electrical and thermal principles with a heating unit that may instantly be removed and replaced. Regular finish full nickel plated.

Complete with cord and Edison attaching plug.



3-lb. Iron.

		Watts.	Volts.	Each.
No. 38123	3-lb. iron	250	95–105	$8.00
,, 38124	3 ,, ,,	250	106–115	8.00
,, 38125	3 ,, ,,	250	116–125	8.00

Same as above only full aluminum finish, —

		Watts.	Volts.	Each.
No. 36814	6-lb. iron	500	95–105	$8.50
,, 36815	6 ,, ,,	500	106–115	8.50
,, 36818	6 ,, ,,	500	116–125	8.50
,, 40806	6 ,, ,,	500	200–225	9.50
,, 43481	6 ,, ,,	500	226–250	9.50

NOTE.—The above irons equipped with combination indicating switch No. 42441, additional $1.00 list.



6-lb. Iron.

		Watts.	Volts.	Each.
No. 45415	6-lb. iron	500	95–105	$9.75
,, 45416	6 ,, ,,	500	106–115	9.75
,, 45417	6 ,, ,,	500	116–125	9.75
,, 45418	6 ,, ,,	500	200–225	10.75
,, 45419	6 ,, ,,	500	226–250	10.75

NOTE.—Prices on above irons include combination indicating switch No. 42441. Above irons full nickel plated finish.

		Watts.	Volts.	Each.
No. 39921	8-lb. iron	600	95–105	$10.00
,, 39922	8 ,, ,,	600	106–115	10.00
,, 39923	8 ,, ,,	600	116–125	10.00
,, 40805	8 ,, ,,	600	200–225	11.00
,, 43482	8 ,, ,,	600	226–250	11.00

NOTE.—The above irons full aluminum finish and equipped with combination indicating switch No. 42441, additional $1.00 list.

No. 42441. Combination plug and switch, complete with 8 ft. cable and socket attaching plug, each, $4.00

No. 42442. Attachment plug complete with 8 ft. cable and attaching plug . . . . . each, 3.00

Extra cartridge unit for either 3-lb., 6-lb., or 8-lb. irons, 95–125 volts . . . . . each, 2.50

Extra cartridge units for 220 volts . . . . . each, 3.00



No. 1508.

IRONS, Flat (Continued).

Simplex Electric Flat Irons.

Corset Irons.

Corset pressing irons are furnished either with plain or automatic handle, and either with plain or automatic temperature regulator stand. Irons are bright polished, with nickeled handle and light wood grip. A stand, as listed, of cast iron mounted on a slate base and six feet of flexible conductor with elastic cord to suspend the same is included in the prices below. Additional conductor 8 cents per foot. Plug switch extra. Shape, pointed nose. State voltage when ordering.

	Watts. Min.	Max.	Price.
No. 1508. 8½ lbs. corset iron, with plain stand, no regulator.....		350	$8.00
No. 1568. 8½ lbs. corset iron, with automatic regulator stand...210		350	11.25
No. 1518. 9½ lbs. corset iron, with plain stand and automatic handle switch, no regulator.....		350	10.50
No. 1578. 9½ lbs. corset iron, with automatic regulator stand and automatic handle switch.....210		350	13.75

Family Laundry Iron.

Suitable for all-round family use. Nickel plated. Complete with cord and connecting plug.

Shape, pointed nose. Size of bottom, 3¾ inches broad, 6¼ inches long.

No. 1502D..... 6 pounds..... watts, 475 price, $6.50

Hat Irons.

This iron is very useful to a gentleman when traveling.

Shape, smooth face. Size of bottom, 2⅜ inches broad, 4¾ inches long.

No. 1503. 3½ lbs. Complete with cord and plug.....watts, 200 price, $5.00



No. 1507.

Hatters' Irons.

Below are listed standard hat pressing irons, with plain stands, also with automatic regulator stands, plain handles, and automatic handle switches. The factory hat iron is listed also with a special stand, which permits the iron to rest upon its side when so desired. Irons are polished, with nickeled handle and light wood grip. Stands are of cast iron on slate bases. Irons have 6 feet of flexible conductor with elastic cord to suspend the same. Additional conductor eight cents per foot. Plug switch extra. State voltage when ordering.

Shape, round nose.	Watts. Min.	Max.	Price.
No. 1507. 9 lbs. Standard Hatters. With plain stand.....		450	$8.00
No. 1509. 15 lbs. Factory Hatter. With plain stand.....		450	10.00
No. 1529. 15 lbs. Factory Hat Iron. With special factory handle and stand to hold the iron on its side.....		450	10.00
No. 1567. 9 lbs. Standard Hatter. With regulator.....275		450	11.25
No. 1569. 15 lbs. Factory Hatter. With regulator.....275		450	13.25

(Continued on next page.)

IRONS, Flat.

Simplex Electric Flat Irons (Continued).

Hatter's Irons.

		Watts. Min.	Max.	Price.
No. 1517. 10 lbs.	Standard Hatter. With plain stand and automatic handle switch...		450	$10.50
No. 1519. 16 lbs.	Factory Hatter. With plain stand and automatic handle switch...		450	12.50
No. 1577. 10 lbs.	Standard Hatter. With regulator and automatic handle switch...	275	450	13.75
No. 1579. 16 lbs.	Factory Hatter. With regulator and automatic handle switch...	275	450	15.75

Household Irons.

Suitable for all light laundry requirements. Nickel plated. Complete with cord and connecting plug.

Shape, pointed nose. Size of bottom, 3⅝ inches broad, 6 inches long.

		Watts.	Price.
No. 1502C. 5 lbs.	With plain stand	400	$6.00
,, 1562C. 5 ,,	,, automatic regulator stand	400	9.25
No. 1512C. 6 lbs.	With plain stand and handle switch	400	8.50



No. 1501.

Polishing Irons.

Polishing irons are made as listed both with diamond and morocco face in the standard shape and size. These irons are polished, have nickel handle and light wood grip. A plain stand of cast iron mounted on a slate base and 6 feet of improved flexible conductor with elastic cord to suspend the same is included in the prices below. Additional conductor, 8 cents per foot. Plug switch extra. State voltage when ordering.

Shape, diamond face.

		Watts.	Price.
No. 1501. 3½ lbs.	Troy Diamond Face	330	$6.00
,, 1500. 3½ lbs.	Diamond face. For Tyler machine	330	6.50

Shape, pointed nose.

No. 1520. 5½ lbs.	Morocco Face	450	7.00

Shape, round nose.

No. 1521. 5½ lbs.	Morocco Face	450	7.00

These irons are polished, with nickeled automatic handle switch. A plain stand of cast iron mounted on a slate base and 6 feet of flexible conductor to suspend the same is included in the prices below. Additional conductor, 8 cents per foot. Plug switch extra. State voltage when ordering.

Shape, diamond face.

		Watts.	Price.
No. 1511. 4½ lbs.	Troy Diamond Face	330	$8.50
,, 1510. 4½ ,,	Diamond Face. For Tyler machine	330	9.00

Shape, pointed nose.

No. 1530. 6½ lbs.	Morocco Face	450	9.50

Shape, round nose.

No. 1531. 6½ lbs.	Morocco Face	450	9.50

These irons are polished, with temperature regulator 3 feet of conductor and nickeled automatic handle switch. The irons have 6 feet of conductor with elastic cord to suspend the same. Additional conductor, 8 cents per foot. Plug switch extra. State voltage when ordering.



No. 1530.

(*Continued on next page.*)



No. 1571.

IRONS, Flat.

Simplex Electric Flat Irons (Continued).

Polishing Irons.

	Watts. Min.	Max.	Price.
Shape, diamond face.			
No. 1571. 4½ lbs. Troy Diamond Face	255	330	$11.75
,, 1570. 4½ ,, Diamond Face. For Tyler machine. With regulator	255	330	12.25
Shape, pointed nose.			
No. 1590. 6½ lbs. Morocco Face. With regulator	275	450	12.75
Shape, round nose.			
No. 1591. 6½ lbs. Morocco Face. With regulator	275	450	12.75

Sewing Room Irons.

Larger than above, and therefore has a wider range of usefulness; suitable for light pressing. Nickel plated. Complete with cord, plug, etc.

Shape, pointed nose. Size of bottom, 3 inches broad, 5¾ inches long.

	Watts.	Price.
No. 1502B. 4 lbs. With plain stand	280	$5.00
,, 1562B. 4½ ,, ,, automatic regulator stand	280	8.25
No. 1512B. 5½ lbs. With plain stand and handle switch	280	7.50

Sleeve Irons.

6¾ x 2⅝ inches maximum width.

This long pointed iron has a flat bottom and rounded top, suitable for sleeves, shirt waists, etc. The stand is cast iron mounted on a slate base.

	Watts.	Price.
No. 1522. 3½ lbs. No regulator	300	$6.00

Same as above, but has the automatic handle switch. The stand is cast iron mounted on a slate base.

	Watts.	Price.
No. 1532. 4½ lbs. No regulator	300	$8.50

Same as above, but has automatic temperature regulator stand.

	Watts Min.	Max.	Price.
No. 1582. 3½ lbs. With regulator	230	300	$9.25

Same as above, but has automatic regulator stand and automatic handle switch.

	Watts. Min.	Max.	Price.
No. 1592. 4½ lbs. With regulator	230	300	$11.75

These irons are polished, with automatic temperature regulator stand, nickeled handle, light wood grip. The automatic temperature regulator stand is mounted on a slate base; has 3 feet of flexible conductor. The irons have 6 feet of conductor and elastic cord to suspend the same. Additional conductor 8 cents per foot. Plug switch extra. State voltage when ordering.



No. 1582.

	Watts. Min.	Max.	Price.
Shape, diamond face.			
No. 1561. 3½ lbs. Troy Diamond Face. With regulator	255	330	$9.25
No. 1560. 3½ lbs. Diamond Face. For Tyler machine. With regulator	255	330	9.75
Shape, pointed nose.			
No. 1580. 5½ lbs. Morocco Face. With regulator	275	450	10.25
Shape, round nose.			
No. 1581. 5½ lbs. Morocco face. With regulator	275	450	10.25

IRONS, Flat.

Simplex Electric Flat Irons (Continued).



No. 1505.

Smoothing Irons, Plain Stand.

These irons are polished, with nickeled handle and light wood grip. A plain stand of cast iron mounted on a slate base and 6 feet of improved flexible conductor, with elastic cord to suspend the same, is included in the prices below. Additional conductor, 8 cents per foot. Plug switch extra. State voltage when ordering.

Shape, pointed nose.	Watts.	Price.
No. 1504. 5½ lbs. Light Domestic. For thin work	450	$7.00
No. 1505. 7½ lbs. Domestic. For general use in the household, hotels, and public institutions	540	7.50
No. 1506. 9 lbs. Heavy Laundry. For wet goods	610	8.00
Shape, round nose.		
No. 1504½. 5½ lbs. Light Domestic	450	7.00
,, 1505½. 7½ ,, Domestic	540	7.50



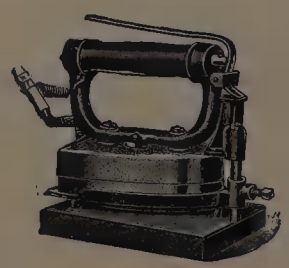
No. 1565.

Smoothing Irons with Regulator.

The temperature regulator forms a stand to receive the iron when idle and is automatic in operation. The act of placing an iron on the stand operates a lever to cut off a portion of the current supplied, and removing the iron turns on the full supply for such a period as the iron is at work.

Irons are polished, with nickled handle and light wood grip. The regulator stand is mounted on a slate base, has 3 feet of flexible conductor. The irons have 6 feet of conductor and elastic cord for suspending the same. Additional conductor, 8 cents per foot. Plug switch extra. State voltage when ordering.

Shape, pointed nose.	Watts. Min.	Max.	Price.
No. 1564. 5½ lbs. Light Domestic. With regulator	275	450	$10.25
No. 1565. 7½ lbs. Domestic. The popular size for all-round use. With regulator	325	540	10.75
No. 1566. 9 lbs. Heavy Laundry. For heavy wet goods. With regulator	375	610	11.25
Shape, round nose.			
No. 1564½. 5½ lbs. Light Domestic. With regulator	275	450	10.25
No. 1565½. 7½ lbs. Domestic. For general laundry work. With regulator	325	540	10.75



No. 1515.

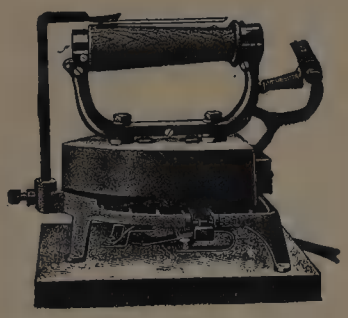
Smoothing Irons with Automatic Handle and Plain Stand.

The automatic handle switch is designed to cut off the current when the iron is left anywhere except on the stand provided for it. The irons are polished, have a plain stand of cast iron on a slate base and 6 feet of flexible conductor with elastic cord to suspend the same.

Shape, pointed nose.	Watts.	Price.
No. 1514. 6½ lbs. Light Domestic. For thin work	450	$9.50
No. 1515. 8½ lbs. Domestic. For general work	540	10.00
No. 1516. 10 lbs. Heavy Laundry. For wet goods	610	10.50
Shape, round nose.		
No. 1514½. 6½ lbs. Light Domestic	450	9.50
,, 1515½. 8½ ,, Domestic	540	10.00

IRONS, Flat.

Simplex Electric Flat Irons (Continued).



No. 1575.

Smoothing Irons with Automatic Regulator and Automatic Handle.

These irons are polished, with nickeled automatic handle switch, light wood grip. The automatic temperature regulator stand is mounted on a slate base, has 3 feet of flexible conductor. The irons have 6 feet of conductor and elastic cord to suspend the same. Additional conductor, 8 cents per foot. Plug switch extra. State voltage when ordering.

Shape, pointed nose.	Watts. Min.	Watts. Max.	Price.
No. 1574. 6½ lbs. Light Domestic. With regulator	275	450	$12.75
No. 1575. 8½ lbs. Domestic. For general use. With regulator	325	540	13.25
No. 1576. 10 lbs. Heavy Laundry. For wet goods. With regulator	375	610	13.75
Shape, round nose.			
No. 1574½. 6½ lbs. Light Domestic. With regulator	275	450	12.75
No. 1575½. 8½ lbs. Domestic. For general use. With regulator	325	540	13.25



No. 1803.

Tailors' Goose with Plain Stand.

These irons are polished, with nickeled handle and light wood grip. A plain stand of cast iron on a slate base and 6 feet of flexible conductor with elastic cord to suspend the same is included in the prices given. Additional conductor, 8 cents per foot. Plug switch extra. State voltage when ordering.

Shape, diamond nose. Size, 9 inches long by 2¾ inches wide.	Watts.	Price.
No. 1801. 12 lbs.	660	$9.25
,, 1802. 15 ,,	660	9.75
,, 1803. 18 ,,	660	10.50
Size, 11 inches long by 3 inches wide.		
No. 1804. 20 lbs.	770	11.00
,, 1808. 25 ,,	880	12.00
Shape, oval nose. Size, 11 inches long by 3½ inches wide.		
No. 1809. 15 lbs.	770	10.00
,, 1821. 20 ,,	770	11.00
,, 1822. 25 ,,	935	12.00
Shape, special broad. Size, 8 inches long by 6 inches wide.		
No. 1825. 12 lbs.	770	$9.25
,, 1807. 15 ,,	770	9.75
,, 1826. 18 ,,	880	10.50
,, 1827. 25 ,,	880	12.00

Tailors' Goose with Automatic Regulator Stand.

Irons are polished with nickel handle, light wood grip. The irons have six feet of flexible conductor with elastic cord to suspend the same. Additional conductor eight cents per foot. Plug switch extra. State voltage when ordering.

Shape, diamond nose. Size 9 inches long by 2¾ inches wide.	Watts. Min.	Watts. Max.	Price.
No. 1841. 12 lbs., with regulator	400	660	$12.50
,, 1842. 15 ,, ,, ,,	400	660	13.00
,, 1843. 18 ,, ,, ,,	400	660	13.75
Size 11 inches long by 3 inches wide.			
No. 1864. 20 lbs., with regulator	530	770	14.25
,, 1868. 25 ,, ,, ,,	530	880	15.25

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No. 1867.

IRONS, Flat.

Simplex Electric Flat Irons (Continued).

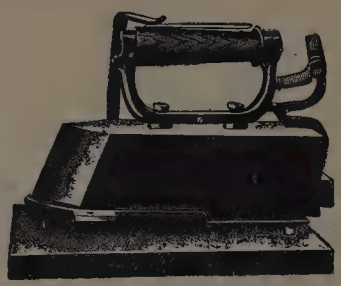
Tailors' Goose with Automatic Regulator Stand.

Shape, oval nose.	Watts. Min.	Max.	Price.
No. 1869. 15 lbs., with regulator	530	770	$13.25
,, 1881. 20 ,, ,, ,,	530	770	14.25
,, 1882. 25 ,, ,, ,,	530	935	15.25
Shape, special broad. Size, 8 inches long by 6 inches wide.			
No. 1885. 12 lbs., with regulator	530	770	12.50
,, 1867. 15 ,, ,, ,,	530	770	13.00
,, 1886. 18 ,, ,, ,,	530	880	13.75
,, 1887. 25 ,, ,, ,,	530	880	15.25

Tailors' Goose with Automatic Handle.

These irons are polished, have stand of cast iron on a slate base and six feet of flexible conductor with elastic cord to suspend the same. Additional conductor eight cents per foot. Plug switch extra. State voltage when ordering.

Shape, diamond nose. Size, 9 inches long by 2¾ inches wide.	Watts.	Price.
No. 1811.....13 pounds	660	$11.75
,, 1812.....16 ,,	660	12.25
,, 1813.....19 ,,	660	13.00
Size, 11 inches long by 3 inches wide.		
No. 1814.....21 pounds	770	13.50
,, 1818.....26 ,,	880	14.50
Shape, oval nose. Size, 11 inches long by 3½ inches wide.		
No. 1819.....16 pounds	770	12.50
,, 1831.....21 ,,	770	13.50
,, 1832.....26 ,,	935	14.50
Shape, special broad. Size, 8 inches long by 6 inches wide.		
No. 1835.....13 pounds	770	11.75
,, 1817.....16 ,,	770	12.25
,, 1836.....19 ,,	880	13.00
,, 1837.....26 ,,	880	14.50



No. 1814.

Tailors' Goose with Automatic Regulator Stand and Automatic Handle.

These irons are polished, have temperature regulator stands, three feet of conductor and nickeled automatic handle switch. The irons have six feet of flexible conductor with elastic cord to suspend the same. Additional conductor eight cents per foot. Plug switch extra. State voltage when ordering.

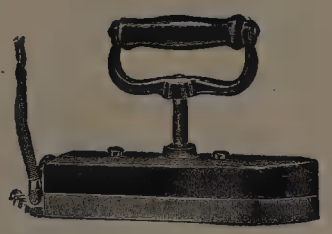
Shape, diamond nose. Size, 9 inches long by 2¾ inches wide.	Watts. Min.	Max.	Price.
No. 1861. 13 lbs., with regulator	400	660	$15.50
,, 1862. 16 ,, ,, ,,	400	660	15.50
,, 1863. 19 ,, ,, ,,	400	660	16.20
Size, 11 inches long by 3 inches wide.			
No. 1874. 21 lbs., with regulator	530	770	16.75
,, 1878. 26 ,, ,, ,,	530	880	17.75
Shape, oval nose. Size, 11 inches long by 3½ inches wide.			
No. 1879. 16 lbs., with regulator	530	770	15.75
,, 1891. 21 ,, ,, ,,	530	770	16.75
,, 1892. 26 ,, ,, ,,	530	935	17.75
Shape, special broad. Size, 8 inches long by 6 inches wide.			
No. 1895. 13 lbs., with regulator	530	770	15.00
,, 1877. 16 ,, ,, ,,	530	770	15.50
,, 1896. 19 ,, ,, ,,	530	880	16.25
,, 1897. 26 ,, ,, ,,	530	880	17.75



No. 1879.

IRONS, Flat.

Simplex Electric Flat Irons (Continued).



No. 1806.

Tailors' Machine Irons without Regulators.

Irons are polished, with nickeled handle and light wood grip. No stand is necessary. All irons have the stud or shank $\frac{5}{8}$ inch in diameter and space for collar $1\frac{7}{8}$ inches between handle and iron. Six feet of improved flexible conductor with elastic cord to suspend the same properly above the work is included in the prices below. Additional conductor eight cents per foot. Plug switch extra. State voltage when ordering.

Shape, diamond nose.

Size, 11 inches long by 3 inches wide.

	Watts	Price.
No. 1805.....$14\frac{1}{2}$ pounds.....	770	$10.00

Shape, oval nose.

Size, 11 inches long by $3\frac{1}{2}$ inches wide.

No. 1820.....12 pounds.....	770	9.50
,, 1806.....15 ,, ...	770	10.00
,, 1823.....18 ,, ...	770	10.50

Tailors' Machine Irons with Regulators.

Irons are listed below having hand regulators, and also having the combination hand and automatic temperature regulator, which is described below. The irons are polished, with nickeled handle and light wood grip. All irons have the stud or shank $\frac{5}{8}$ inch in diameter and space for collar $1\frac{7}{8}$ inches between handle and iron. Six feet of flexible conductor, with elastic cord to suspend the same properly above the work, is included in the prices below. Additional conductor eight cents per foot. Plug switch extra. State voltage when ordering.

With Hand Regulator.

The hand regulator is a simple rheostat or regulator with six steps and is used for changing the current supply to iron different kinds of work, as when it changes from light to heavy goods.

Shape, diamond nose.	Watts.	Price.
No. 1865. $14\frac{1}{2}$ lbs., size 11 in. long by 3 in. wide.....	770	$13.75
Shape, oval nose.		
No. 1880. 12 lbs., size 11 in. long by $3\frac{1}{2}$ in. wide.....	770	13.25
No. 1866. 15 lbs., size 11 in. long by $3\frac{1}{2}$ in. wide.....	770	13.75
No. 1883. 18 lbs., size 11 in. long by $3\frac{1}{2}$ in. wide.....	770	14.25



Automatic Regulator.

With Combination Hand and Automatic Regulator.

The combined hand and automatic control outfit includes the hand regulator to be operated as described above, and a handle switch on the iron, which operates to further reduce the current so as to supply only the amount necessary to keep the iron at working temperature whenever it is idle.

Shape, diamond nose.	Watts.	Price.
No. 1875. $15\frac{1}{2}$ lbs., size 11 in. long by 3 in. wide.....	770	$16.25
Shape, oval nose.		
No. 1890. 13 lbs., size 11 in. long by $3\frac{1}{2}$ in. wide.....	770	15.75
No. 1876. 16 lbs., size 11 in. long by $3\frac{1}{2}$ in. wide.....	770	16.25
No. 1893. 19 lbs., size 11 in. long by $3\frac{1}{2}$ in. wide.....	770	16.75

IRONS, Flat.

Simplex Electric Flat Irons (Continued).



No. 1502.

Traveling Irons.

This iron is thoroughly practical for the many minor uses one has for an iron when living in hotels or traveling. It is nickel plated, with handle of light wood. The stand is of white metal, mounted on slate base, and is as light as safe construction will permit. Complete with plug and six feet of cord for connecting to any lamp socket. Additional conductor, eight cents per foot. State voltage when ordering.

Shape, pointed nose.

Size of bottom, 2¼ inches broad, 5½ inches long.

	Watts.	Price.
No. 1502. 3 lbs., with plain stand	200	$4.50
,, 1512. 4 lbs., with plain stand and handle switch	200	7.00

IRONS, Guard.

Galvanized Guard Irons.

Made to go on end of wooden cross arm to hold wire in case insulator breaks.

No. 1315. Galvanized guard iron, ½ in. iron.per 100, $12.50



Guard Iron.

IRON, Ridge (see Brackets, iron).

IRON, Shoe.

G. E. Shoe Iron.

No. 43505. .....140 watts, 95–125 volts.....each, $24.00

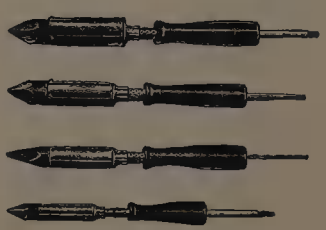
IRONS, Soldering.

Simplex Soldering Irons.

All tips are interchangeable on the same size of irons and can be instantly removed.

By use of the patented *automatic rheostat stand* irons required for use at infrequent intervals can be kept always ready for use, though the current is but one half that required for the iron when at work.

All irons are fitted with lamp socket plugs, so they may be connected for use about a building where lamps are used. Special irons to order.



Soldering Irons.

	Watts.	Price.	Extra Tips, Price.
No. 239. Light telephone, for light wire work. ⅞ in. diam. by 11 in. long. Complete with cord and plug.....	75	$6.00	$ .50
No. 240. Light, for small work, 1 in. diam. by 12 in. long. Complete with cord and plug.....	100	6.25	.60
No. 241. Medium, equal to about a 2-lb. iron; 1¼ in. diam. by 15 in. long. Complete with cord and plug.....	200	6.50	.65
No. 242. Equal to about 3-lb. iron; 1½ in. diam. by 15½ in. long. Complete with cord and plug.....	275	7.50	.70
No. 243. Equal to about a 4-lb. iron; 1¾ in. diam. by 15½ in. long. Complete with cord and plug.....	450	8.50	.70
Plain bench stands supplied at.....			.50
We furnish any of the above soldering irons with automatic handle switches when so ordered, at an extra cost of.....		each,	2.00

(*Continued on next page.*)

IRONS, Soldering.

Simplex Soldering Irons
(Continued).

With this addition the iron cannot be laid anywhere except on its stand without the current being instantly cut off, thereby preventing the possibility of its causing a fire.

	Watts.	Price.
No. 238. Telephone, with 6 feet of cord and plug	75	$7.00

This is a specially light iron for telephone or telegraph switchboard work or any delicate instrument solderings. Weight, 10 ounces, $\frac{7}{8}$ inch diameter by 10½ inches long (exclusive of tip).

It is so constructed that the tip, which is a $\frac{3}{8}$-inch copper rod, may be removed by backing off the tapered nut with a spanner wrench. Any length of tip may be used within reasonable limits. Automatic stands should always be used with soldering irons that are generally in use.

Simplex Automatic Iron Stand.

Placing the iron on the stand reduces the current one half, leaving sufficient to keep the iron hot, yet fully protects it from overheating, no matter how long it remains. Removing the iron restores the full supply of current to the working tool.

Electric soldering irons need the protection afforded by this device where they are required for shop use.



Automatic Iron Stand.

		Price.
No. 1100	For 239	$3.50
,, 1101	,, 240	3.50
,, 1102	,, 241	3.50
,, 1103	,, 242	3.50
,, 1104	,, 243	3.50

Vulcan Soldering Irons.

Winding chambers are encased in continuous metal sheaths without the slightest crack for entrance of destructive soldering flux fumes. All seams brazed. One piece handle, unscrews and slides back on cord, exposing terminals.

Each tool is equipped with 6-foot cord and Edison attaching plug.

Branding tips furnished with lettering to order.

Standard voltages are 100, 104, 110, 115, 120, 200, 210, 220, 230.

Windings for special voltages, $1.00 extra.



No. 100.



No. 200.



No. 300.



No. 400.

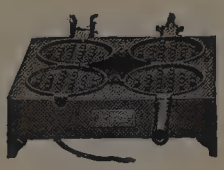


No. 500.



No. 600.

No.		Each.
100.	70 watts, equal to a 1½-lb. copper.... Rewinding, $1.25; extra tips, $ .30. Branding tips (unlettered), $ .50.	$6.00
200.	150 watts, equal to 3-lb. copper.... Rewinding, $1.75; extra tips, $ .50. Branding tips (unlettered), $ .75.	8.00
300.	250 watts, equal to 4½-lb. copper.... Rewinding, $2.50; extra tips, $ .75. Branding tips (unlettered), $1.15	10.00
400.	350 watts, equal to a 6-lb. copper.... Rewinding, $3.00; extra tips, $1.00. Branding tips (unlettered), $1.50.	12.00
500.	120 watts, equal to a 2-lb. copper.... Rewinding, $1.75; extra tips, $ .40. Branding tips (unlettered), $ .65.	7.00
600.	55 watts, equal to a 1-lb. copper..... Rewinding, $1.25; extra tips, $ .25. Branding tips (unlettered), $ .45.	5.00



No. 1400.

IRONS, Waffle.

Simplex Waffle Irons.

Both the top and bottom irons are uniformly heated, so that the irons cook the waffle from both sides at the same time, doing the work more quickly than is possible with irons over gas or coal. The irons do not have to be turned, and there is no unequal cooking. As both sides are exactly the same, a glance at the top of the waffle shows the condition of the underside, enabling the operator to get perfect results.

Each pair of irons bakes two round waffles five inches in diameter at one time. The irons are supported in plain iron or nickel plated frames containing one pair of irons as listed. Those with nickel plated, polished frames have nickel plated trays and are intended for use on the dining or serving table in the breakfast room.

	Watts.	Price.
No. 1400. One pair; size, two waffles; plain black finish	500	$7.50
No. 1401. One pair; polished nickel plated frame	500	10.00

IRON Wire (see W).

JACK Box (see Telephone).
JACK-Knife Switches (see S).
JACKS, see following headings:
Jacks, Car and Track.
Telephone (see Telephones).

JACKS, Car and Track (see also Replacers).

Barrett Jacks

All Barrett jacks are constructed of the following materials:

Frame or base — malleable iron.

Rack — forged steel, machine cut teeth.

Pawls — drop forged open hearth steel high of carbon.

Fulcrum pin — high carbon rolled steel, machined.

Bearings — hardened steel.

Handles — Selected ash or hickory.

The large rectangular shaped base gives great lifting strength and permits the jack to be used in close quarters, affording an advantage over round or bulky bases.

The ribs of the base combine great strength with comparatively light weight.

These jacks are adapted to high or low set loads by using either the top of the rack or the projecting foot at the lower end.

The working parts are all accurately machine finished, and when worn out can be easily removed and replaced at slight expense.



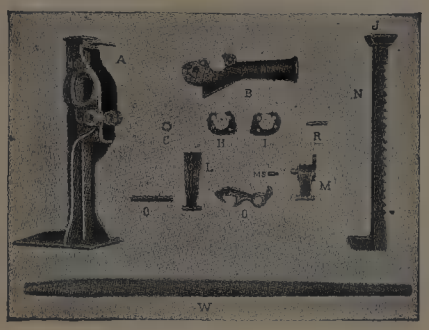
No. 1.

No. 1 Track or Trip Jack

Has a lifting capacity of 10 tons. The leverage is compound, double acting, lifting the load half a notch on both upward and downward strokes. Load can be instantly dropped from any elevation at will of operator. It is positive, speedy, and durable. This is the recognized standard track jack, and has been adopted by the leading railroads of America. Its construction conforms strictly to the requirements of the Roadmasters' Association, and it is specifically recommended by them in their report of September, 1902.

We recommend trip jacks for truck work only.

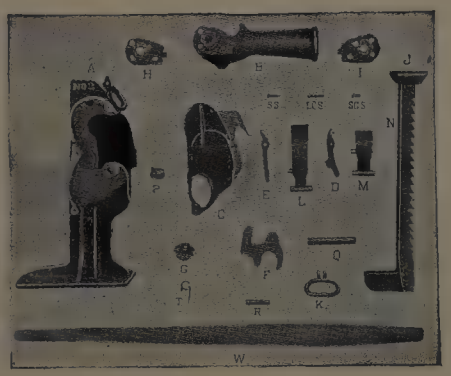
Capac. in Tons.	Height, Bar Down, Inches.	Raise of Bar, Inches.	Height, Bar Raised, Inches.	Size of Bar, Inches.	Weight in Pounds.	List Price.
10	24	13½	37½	1½ x 1½	62	$18.00



Parts of No. 1.



No. 2.



Parts of No. 2.



No. 8.

JACKS, Car and Track.

Barrett Jacks (Continued).

Parts of No. 1 Jack.

A	Base with bushings	$7.50
B	Socket lever with side plates	3.00
C	Bushings (2) each	.20
H	Right-hand side plate	.30
I	Left-hand side plate	.30
J	Top of rack	.30
L	Long pawl	1.50
M	Short pawl	1.50
N	Steel rack	4.50
O	Trip	.50
Q	Fulcrum pin	.30
R	Side plate rivets (2) each	.05
MS	Short pawl screw	.10
W	Wood handle	.50

No. 2 Automatic Lowering Jack.

This is a popular jack, being suitable for all general lifting purposes. It is the recognized standard for electric street railway lines, being used in track construction, also as a car jack in cases of emergency, such as derailment or accident where cars have to be lifted quickly and lowered gradually. Its operation is easy and simple. The load is moved up or down half a notch at each stroke on both upward and downward movements of the lever. The direction is easily controlled by the eccentric at side of the frame. It has no trip, consequently cannot drop a load through carelessness.

This jack will operate at any angle.

Capac. in Tons.	Height, Bar Down. Inches.	Raise of Bar, Inches.	Height, Bar Raised, Inches.	Size of Bar, Inches.	Weight, Pounds.	List Price.
10	21	10	31	$1\frac{5}{8}$ x $1\frac{1}{2}$	65	$25.00

Parts of No. 2 Jack.

A	Base with bushings and handle	$10.00
B	Socket lever with side plates	3.50
C	Shield	.90
D	Short pawl spring lever	.30
E	Long pawl spring lever	.30
F	Lowering block	.80
G	Eccentric	.30
H	Right-hand side plate	.30
I	Left-hand side plate	.30
J	Top of rack	.30
K	Carrying handle	.20
L	Long pawl	1.60
M	Short pawl	1.60
N	Steel rack	5.00
P	Bushings (2) each	.20
Q	Fulcrum pin	.30
R	Side plate rivets (2) each	.05
T	Springs (2) each	.10
W	Wood handle	.55
SS	Shoulder screws (4) each	.10
SCS	Short shield screws (3) each	.08
LCS	Long shield screw	.10

No. 8 Automatic Lowering Jack.

While this jack is known as a Car Box Jack in car departments, it has been found to be useful for many other purposes. Although small in size and of light weight, it is strong and positive in action. The mechanism and operation is the same as No. 2. This jack is made special with extra length of rack for raising electric cars in removing the trucks.

This jack operates at any angle.

JACKS, Car and Track.

Barrett Jacks (Continued).

No. ■ Automatic Lowering Jack.

Capac. in Tons.	Height, Bar Down, Inches.	Raise of Bar, Inches.	Height Bar Raised, Inches.	Size of Bar, Inches.	Weight, Pounds.	List Price.
10	11	5	16	$1\frac{5}{8}$ x $1\frac{1}{2}$	48	$22.00

Parts of No. 8 Jack.

A	Base with bushings and handle	$9.00
B	Socket lever with side plates	3.50
C	Shield	.90
D	Short pawl spring lever	.30
E	Long pawl spring lever	.30
F	Lowering block	.80
G	Eccentric	.20
H	Right-hand side plate	.30
I	Left-hand side plate	.30
L	Long pawl	1.60
M	Short pawl	1.60
N	Steel rack	2.00
K	Carrying handle	.20
P	Bushings (2) each	.20
Q	Fulcrum pin	.30
R	Side plate rivets (2) each	.05
T	Springs (2) each	.10
W	Wood handle	.55
SS-FS-LS-MS	Shoulder screws (each)	.10
SCS	Short shield screws (3) each	.08
LCS	Long shield screw	.10



Parts of No. 8.

No. 29 Geared Ratchet Lever Jack.

This jack is convenient for the rapid handling of heavy loads of any character. It is single acting, raising on the downward movement of the lever only and has a quick and positive action, and may be readily applied to any general purpose. It has a forged steel foot lift on the rack to grapple low set loads.

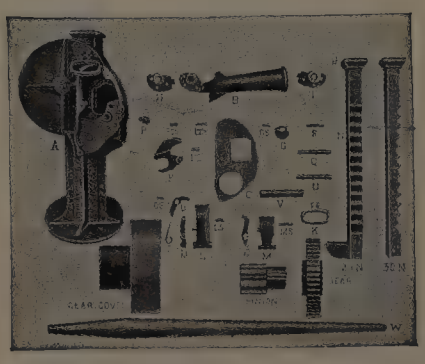
Capac. in Tons.	Height, Bar Raised, Inches.	Raise of Bar, Inches.	Height, Bar Raised, Inches.	Size of Bar, Inches.	Weight in Pounds.	List Price.
25	28	17	45	$2\frac{1}{2}$ x $2\frac{1}{4}$	175	$95.00



No. 29.

Parts of No. 29 Jack.

A	Base with bushings and handles	$35.00
B	Socket lever with side plates	3.50
C	Shield	1.00
D	Short pawl spring lever	.30
E	Long pawl spring lever	.30
F	Lowering block	.80
G	Eccentric	.20
H	Right-hand side plate	.30
I	Left-hand side plate	.30
J	Top of rack	1.00
K	Carrying handles (2) each	.20
L	Long pawl	1.80
M	Short pawl	1.60
N	Steel rack	20.00
O	Auxiliary lever	.20
P	Bushings (2) each	.20
Q	Fulcrum pin	.35
R	Side plate rivets (2) each	.05
T	Springs (2) each	.10
U	Pawl pin	.30
V	Pinion shaft	2.50
W	Wood handle	1.15



Parts of No. 29.

JACKS, Car and Track.

Barrett Jacks (Continued).

Parts of No. 29 Jack.

	Gear and pinion	$35.00	SCS	Short shield and gear cover screws (6) each	$ .08
	Gear only	17.50	LCS	Long shield screws	.10
	Pinion only	17.50	LS	Long pawl screw	.10
	Gear keys (2) each	.30	MS	Short pawl screw	.10
	Gear cover	2.50	GS	Eccentric screw	.10
OS	Auxiliary lever screw	.10	FS	Lowering block screw	.10

This table gives a complete list of all styles and sizes of Barrett jacks, which we are unable to list with a separate cut and description owing to lack of space,—

Track or Trip Jacks.

	Capacity in Tons.	Height Bar Down, Inches.	Raise of Bar, Inches.	Height of Bar Raised, Inches.	Size of Bar, Inches.	Weight in Pounds.	List Price.
No. 1.	10	24	13½	37½	1½ x 1½	62	$18.00
,, 21.	10	24	11	35	1½ x 1½	61	18.00
,, 6.	15	31	19	50	1⅞ x 1⅝	105	32.00
,, 12.	10	17¾	8	25¾	1½ x 1½	50	17.00
,, 17.	10	24	13¾	37¾	1½ x 1½	63	18.00
,, 11.	10	17¾	8	25¾	1½ x 1½	50	17.00
,, 23.	4	22	13	35	1¼ x 1¼	37	15.00
,, 20.	15	31	19	50	1⅝ x 1⅞	106	32.00

Automatic Lowering Jacks.

No. 2.	10	21	10	31	1⅝ x 1½	65	$25.00
,, 22.	10	18½	8	26½	1½ x 1⅝	66	25.00
,, 32.	10	20½	10	30½	1⅝ x 1½	70	25.00
,, 3.	12	26½	15	41½	1¾ x 1⅞	85	30.00
,, 4.	15	22	10	32	2 x 2	100	35.00
,, 5.	15	28	15	43	2 x 2	115	40.00
,, 8.	10	11	5	16	1⅝ x 1½	48	22.00
,, 48.	15	11	5	16	1¾ x 1⅞	60	25.00
,, 28.	10	10	5	15	1⅝ x 1½	46	22.00
,, 38.	20	10	5	15	2 x 2½	72	30.00
,, 18.	10	21	10	31	1½ x 1⅝	68	25.00
,, 19.	15	28	17½	45½	2 x 2	102	35.00
,, 50.	5	16	8	24	1¼ x 1¼	33	16.00
,, 51.	5	21	13	34	1¼ x 1¼	40	18.00
,, 10.	10	24¼	14	38¼	1½ x 1½	66	25.00

Geared Ratchet Lever Jacks.

No. 29.	25	28	17	45	2½ x 2¼	175	$95.00
,, 30.	35	28	17	45	2½ x 3	225	120.00
,, 31.	35	36	25	61	2½ x 3	260	130.00

Automobile Jacks.

No. 04.	1	11½	6	17½	9½	$5.00
,, 02.	1	10	4½	14½	8½	5.00
,, 05.	1	11	6	17	9½	5.00
,, 03.	1	10	4½	14½	8½	5.00
,, 00.	1	12	6	18	8¼	5.00

Roller Bearing Ratchet Screw Jacks.

	Capacity in Tons.	Height in Inches.	Raise in Inches.	Size of Base, Inches.	Diameter of Head, Inches.	Weight in Pounds.	List Price.
No. 66.	15	22	10	5 x 9	5	110	$60.00
,, 60.	15	26	13	5 x 9	5	122	70.00
,, 67.	25	22	10	8 x 11	6	165	90.00
,, 61.	25	27	13	8 x 11	6	180	96.00
,, 68.	35	22	10	9 x 10½	6¾	200	130.00
,, 62.	35	26	13	9 x 10½	6¾	225	138.00

	Capacity in Tons.	Height in Inches.	Raise in Inches.	Diameter of Base, Inches.	Diameter of Head, Inches.	Weight in Pounds.	List Price.
No. 64.	50	27	13	14	10½	300	$150.00
,, 70.	70	27	13	14	10½	350	200.00

JACKS, Car and Track.

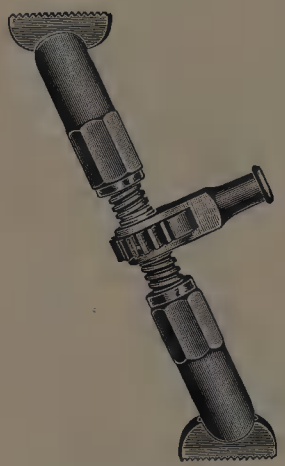
Barrett Jacks (Continued).

Roller Bearing Ratchet Screw Jacks.

	Capacity in Tons.	Height in Inches.	Raise in Inches.	Diameter of Base, Inches.	Weight in Pounds.	Hook Extra.	List Price.
No. 71.	15	18	7	10	75	$5.00	$60.00
,, 72.	15	20	9	10	80	5.00	60.00
,, 73.	15	22	10	10	85	6.00	60.00
,, 74.	15	26	13	10	95	6.00	70.00
,, 81.	25	20	9	10	110	6.00	80.00
,, 82.	25	24	11	11	150	6.00	85.00
,, 83.	25	26	13	12	165	7.00	90.00
,, 63.	25	36	23	12	200	7.00	100.00
,, 91.	35	26	13	12	175	8.00	125.00
,, 92.	35	31	18	12	190	8.00	135.00
,, 93.	35	36	23	12	215	9.00	145.00

Car Inspector's or Journal Jacks.

No. 59.	25	10	4½	70	$56.00
,, 58.	10	11	5	39	20.00
,, 57.	15	9¾	4	43	22.00



Pearson Jack.

	Capacity in Tons.	Height in Inches.	Raise in Inches.	Size of Base, Inches.	Height of Foot from Ground, Inches.	Weight in Pounds.	List Price.
No. 55.	10	14	7	6 x 10	3	65	$22.00
,, 56.	10	20	10	7½ x 7½	3	95	24.00

Differential Screw Jacks.

	Height, closed, Inches.	Height, open, Inches.	Diameter of Large Screw, Inches.	Diameter of Small Screw. Inches.	Capacity in Tons.	Weight in Pounds.	List Price.
No. 11.	8	18	3	2	15	34	$22.00
,, 12.	10	22	3	2	15	38	25.00
,, 13.	13	30	3⅛	2⅛	20	54	30.00
,, 14.	16	39	3¼	2¼	25	68	34.00
,, 15.	16	39	3½	2½	30	84	40.00
,, 16.	19	48	3¾	2¾	40	100	45.00

No. S-1638 Pearson Car Replacing Jacks (see Replacers).

Especially adapted for electric railway use. Works at an angle with the same force as if working perpendicularly. Weight under perfect control. In ordering note carefully the details of sizes, etc.

Jacks in Pairs will raise.	Weight.	Length Closed.	Hoists.	Diameter Screws.	Bar Jacks per Pair.	Ratchet Jacks, per Pair.
25 tons	60 lbs.	24 in.	12 in.	2 in.	$35.00	$45.00
15 ,,	30 ,,	24 ,,	14 ,,	1½ ,,	25.00	35.00
10 ,,	25 ,,	20 ,,	9 ,,	1½ ,,	22.50	32.50
10 ,,	22 ,,	18 ,,	8½ ,,	1½ ,,	20.00	30.00
8 ,,	20 ,,	16 ,,	6½ ,,	1½ ,,	18.00	28.00
8 ,,	18 ,,	14 ,,	4½ ,,	1½ ,,	18.00	28.00



No. 5.

Norton's "Sure Drop" Track Jack.

Body of malleable iron, extra strong base. Lifting bar of forged steel. No springs, and no loose pins. Tripping device so arranged that it is not necessary to lift the load before it can be dropped.

Capacity, 10 tons, 15-inch rise of bar, height down, 24 inches. Size of bar, 1¾ x 1⅜. Weight, 67 pounds. Size of base, 7½ x 10½ inches.

No. 5. Track jack complete..... $14.25

Norton Street Railway Jack.

This jack is designed for electric and street railway service and has been adopted by the Boston Elevated Railway Company for use on their lines.

Style Y. Height, 20 in. Height of foot from ground, 3 in. Rise, 10 in. Size of base, 7½ x 7½ in. Weight, 98 lbs. Capacity, 10 tons.....each, $24.00

Style N. J. Height, 14 in. Height of foot from ground, 3 in. Rise, 7 in. Size of base, 6 x 10 in. Weight, 65 lbs Capacity, 10 tons.....each, 22.00



Style Y.



Style N. J.



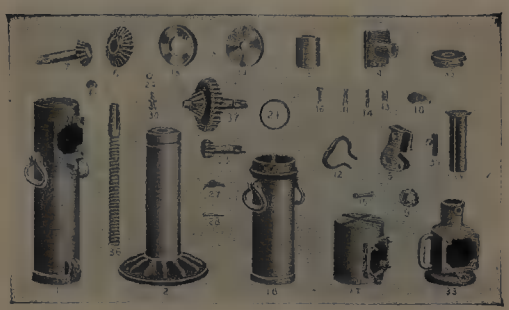
Style Y with Sliding Base.



Style G.



Parts of No. 5.



Parts of Norton Jacks.

JACKS, Car and Track (Continued).

Norton Car-Replacing Jack.

This car replacer consists of a style Y jack and a malleable iron base, with a cradle upon which the jack rests. The cradle slides upon planed ways, and is operated by a movable rack with two rows of teeth cut in opposite directions, and a dog or pawl (connected with the cradle) which drops into position by its own weight. By reversing the dog the direction of travel may be instantly reversed.

Twenty-inch, 10-ton capacity; height over all, 23 inches; rise, 10 inches; traverse, 18 inches; weight, 160 pounds.

Style Y, complete with base $36.00
Sliding base only (weight, 88 pounds) . 12.00

Norton's Cone-Bearing Jack.

Best quality of malleable iron and steel throughout. Has foot cast on shell.

Height, 22 inches; rise, 10 inches; base, 10 inches; weight, 110 pounds; capacity, 15 tons.

Style G, complete..... $28.00

Parts of Norton Jacks.

No. 5 Track Jack Parts.

No.	1. Frame.....	$4.00
,,	2. Steel bar.....	5.00
,,	3. Lever socket.....	2.00
,,	4. Jaw.....	1.00
,,	5. Link.....	.25
,,	6. Lifting pawl.....	1.00
,,	7. Top of bar.....	.50
,,	8. Bolt.....	.25
,,	9. Holding pawl.....	.75
,,	10. Steel ring.....	.50
,,	11. Handle.....	.25
,,	12. Cottered stud.....	.15

Railway Jack Parts.

Specify style of jack in ordering parts.

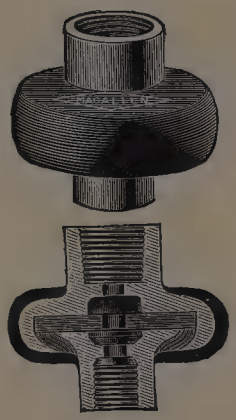
No. 1. Shell.
,, 2. Standard.
,, 3. Nut.
,, 4. Cap.
,, 5. Lever socket.
,, 6. Steel gear and hub.
,, 7. ,, ,, ,, shaft.
,, 9. Ratchet.
,, 10. Pawl.
,, 11. Cotter.
,, 12. Handle.
,, 13. Reversing pin.
,, 14. Spring.
,, 15. Pawl bolt.
,, 16. Cap stud and nut.
,, 18. Bottom bearing plate.
,, 19. Top bearing plate.
,, 21. Inside ring.
,, 24. Steel ball.
,, 27. Stop dog.
,, 28. Stop dog bolt.
,, 30. Adjusting screw.
,, 32. Steel bushing.
,, 33. Shell.
,, 34. Standard.
,, 35. Base plate.
,, 36. Screw.
,, 37. Steel double gear and shaft.
,, 38. Steel pinion gear.
,, 39. Key.

JACKS, Telephone (see Telephones).

JARS, Glass, Porcelain, and Steel
(see the different styles of batteries listed under B).

JENNY Pole Support (see Supports).

JOINTS, Insulating, Macallen (see also Crowfeet, insulated).



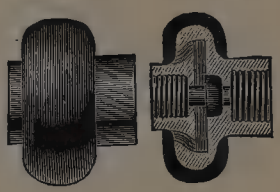
No. 1000.

Chandelier Insulating Joints for Combination Fixtures.

	In Composition Brass. Size.	List Price.		*In Malleable Iron.* Size.	List Price.
No. 1000	1/4 x 1/4	$ .50	No. 1041	3/8 x 1/8	$ .45
,, 1001	3/8 x 1/8	.50	,, 1042	3/8 x 1/4	.45
,, 1002	3/8 x 1/4	.50	,, 1043	3/8 x 3/8	.45
,, 1003	3/8 x 3/8	.50	,, 1044	1/2 x 1/8	.60
,, 1004	1/2 x 1/8	.66 2/3	,, 1045	1/2 x 1/4	.60
,, 1005	1/2 x 1/4	.66 2/3	,, 1046	1/2 x 3/8	.60
,, 1006	1/2 x 3/8	.66 2/3	,, 1047	1/2 x 1/2	.60
,, 1007	1/2 x 1/2	.66 2/3	,, 1048	3/4 x 3/8	.90
,, 1010	3/4 x 3/8	1.00	,, 1049	3/4 x 1/2	.90
,, 1011	3/4 x 1/2	1.00	,, 1050	3/4 x 3/4	.90
,, 1012	3/4 x 3/4	1.00	,, 1051	1 x 1/2	1.45
,, 1013	1 x 1/2	1.60	,, 1052	1 x 3/4	1.45
,, 1014	1 x 3/4	1.60	,, 1053	1 x 1	1.45
,, 1015	1 x 1	1.60			

Bracket Insulating Joints for Combination Fixtures.

	In Composition Brass. Size.	List Price.		*In Malleable Iron.* Size.	List Price.
No. 1261	1/8 x 1/8	$ .40	No. 1141	3/8 x 1/8	$ .36
,, 1262	1/4 x 1/8	.40	,, 1142	3/8 x 1/4	.36
,, 1263	1/4 x 1/4	.40	,, 1143	3/8 x 3/8	.36
,, 1121	3/8 x 1/8	.40	,, 1144	1/2 x 1/8	.50
,, 1122	3/8 x 1/4	.40	,, 1145	1/2 x 1/4	.50
,, 1123	3/8 x 3/8	.40	,, 1146	1/2 x 3/8	.50
,, 1124	1/2 x 1/8	.54	,, 1147	1/2 x 1/2	.50
,, 1125	1/2 x 1/4	.54			
,, 1126	1/2 x 3/8	.54			
,, 1127	1/2 x 1/2	.54			



No. 1261.

Extra Heavy Combination Joints and for Fixtures Larger than 1 inch.

In Composition Brass Only.

	Size.	List Price.		Size.	List Price.
No. 1251	1/2 x 1/2	$1.25	No. 1256	1 1/4 x 1	$3.50
,, 1252	3/4 x 1/2	1.75	,, 1257	1 1/4 x 1 1/4	4.00
,, 1253	3/4 x 3/4	2.00	,, 1258	1 1/2 x 1 1/2	6.00
,, 1254	1 x 3/4	2.50	,, 1259	2 x 2	10.00
,, 1255	1 x 1	2.75			

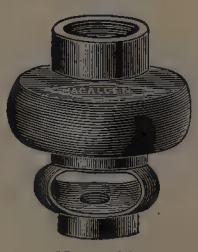
Male and Female Threaded Joints for Combination Fixtures.

	In Composition Brass. Size.	List Price.		*In Malleable Iron.* Size.	List Price.
No. 1264	3/8 x 3/8	$ .50	No. 1266	3/8 x 3/8	$ .45
,, 1265	1/2 x 1/2	.66 2/3	,, 1267	1/2 x 1/2	.60

Electrolier or Separable Joints.

	In Composition Brass. Size.	List Price.		*In Malleable Iron.* Size.	List Price.
No. 1201	3/8 x 1/8	$ .60	No. 1221	3/8 x 1/8	$ .50
,, 1202	3/8 x 1/4	.60	,, 1222	3/8 x 1/4	.50
,, 1203	3/8 x 3/8	.60	,, 1223	3/8 x 3/8	.50
,, 1204	1/2 x 1/8	.80	,, 1224	1/2 x 1/8	.66
,, 1205	1/2 x 1/4	.80	,, 1225	1/2 x 1/4	.66 2/3
,, 1206	1/2 x 3/8	.80	,, 1226	1/2 x 3/8	.66 2/3
,, 1207	1/2 x 1/2	.80	,, 1227	1/2 x 1/2	.66 2/3
,, 1209	3/4 x 3/8	1.20	,, 1228	3/4 x 3/8	1.00 2/3
,, 1210	3/4 x 1/2	1.20	,, 1229	3/4 x 1/2	1.00
,, 1211	3/4 x 3/4	1.20	,, 1230	3/4 x 3/4	1.00
,, 1214	1 x 3/4	2.00	,, 1249	1 x 3/4	1.70
,, 1215	1 x 1	2.00	,, 1250	1 x 1	1.70

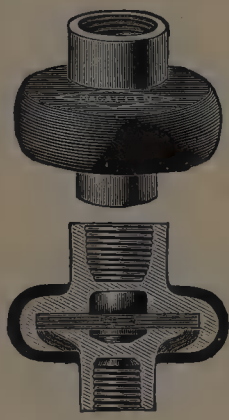
Larger sizes to order.



No. 1201.

JOINTS, Insulating, Macallen.

Electrolier or Separable Joints (Continued).



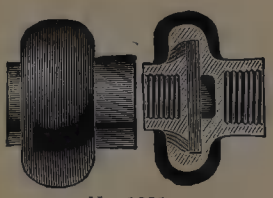
No. 1021.

Bracket Sizes.

In Composition Brass.	Size.	List Price.	*In Malleable Iron.*	Size.	List Price.
No. 1269	¼ x ⅛	$ .50	No. 1241	⅜ x ⅛	$ .45
,, 1270	¼ x ¼	.50	,, 1242	⅜ x ¼	.45
,, 1231	⅜ x ⅛	.50	,, 1243	⅜ x ⅜	.45
,, 1232	⅜ x ¼	.50	,, 1244	½ x ⅛	.55
,, 1233	⅜ x ⅜	.50	,, 1245	½ x ¼	.55
,, 1234	½ x ⅛	.60	,, 1246	½ x ⅜	.55
,, 1235	½ x ¼	.60			
,, 1236	½ x ⅜	.60			

Blank Insulating Joints for Externally Wired Electric Chandelier Fixtures.

In Composition Brass.	Size.	List Price.	*In Malleable Iron.*	Size.	List Price.
No. 1021	⅜ x ⅛	$ .50	No. 1061	⅜ x ⅛	$ .45
,, 1022	⅜ x ¼	.50	,, 1062	⅜ x ¼	.45
,, 1023	⅜ x ⅜	.50	,, 1063	⅜ x ⅜	.45
,, 1024	½ x ⅛	.66⅔	,, 1064	½ x ⅛	.60
,, 1025	½ x ¼	.66⅔	,, 1065	½ x ¼	.60
,, 1026	½ x ⅜	.66⅔	,, 1066	½ x ⅜	.60
,, 1027	½ x ½	.66⅔	,, 1067	½ x ½	.60
,, 1030	¾ x ⅜	1.00	,, 1068	¾ x ⅜	.90
,, 1031	¾ x ½	1.00	,, 1069	¾ x ½	.90
,, 1032	¾ x ¾	1.00	,, 1070	¾ x ¾	.90
,, 1033	1 x ½	1.60	,, 1071	1 x ½	1.45
,, 1034	1 x ¾	1.60	,, 1072	1 x ¾	1.45
,, 1035	1 x 1	1.60	,, 1073	1 x 1	1.45



No. 1281.

Blank Insulating Joints for Externally Wired Electric Bracket Fixtures.

In Composition Brass.	Size.	List Price.	*In Malleable Iron.*	Size.	List Price.
No. 1281	⅛ x ⅛	$ .40	No. 1151	⅜ x ⅛	$ .36
,, 1282	¼ x ⅛	.40	,, 1152	⅜ x ¼	.36
,, 1283	¼ x ¼	.40	,, 1153	⅜ x ⅜	.36
,, 1131	⅜ x ⅛	.40	,, 1154	½ x ⅛	.50
,, 1132	⅜ x ¼	.40	,, 1155	½ x ¼	.50
,, 1133	⅜ x ⅜	.40	,, 1156	½ x ⅜	.50
,, 1134	½ x ⅛	.54	,, 1157	½ x ½	.50
,, 1135	½ x ¼	.54			
,, 1136	½ x ⅜	.54			
,, 1137	½ x ½	.54			

Extra Heavy Blank Joints.

In Composition Brass Only.

	Size.	List Price.		Size.	List Price.
No. 1271	½ x ½	$1.25	No. 1276	1¼ x 1	$3.50
,, 1272	¾ x ½	1.75	,, 1277	1¼ x 1¼	4.00
,, 1273	¾ x ¾	2.00	,, 1278	1½ x 1½	6.00
,, 1274	1 x ¾	2.50	,, 1279	2 x 2	10.00
,, 1275	1 x 1	2.75			

Larger sizes to order.

Male and Female Threaded Blank Joints.

In Composition Brass.	Size.	List Price.	*In Malleable Iron.*	Size.	List Price.
No. 1284	⅜ x ⅜	$ .50	No. 1286	⅜ x ⅜	$ .45
,, 1285	½ x ½	.66⅔	,, 1287	½ x ½	.60



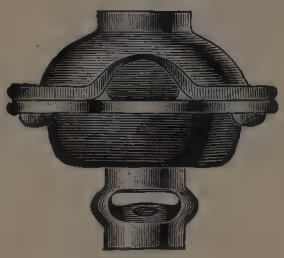
No. 1351.

Separable Electrolier Tripod Joint.

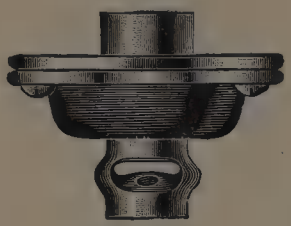
For conduits, with passage for wires through insulation.

In Malleable Iron Only.

	Size.	List Price.		Size.	List Price.
No. 1351	⅜ x ⅛	$ .55	No. 1355	½ x ¼	$ .65
,, 1352	⅜ x ¼	.55	,, 1356	½ x ⅜	.70
,, 1353	⅜ x ⅜	.60	,, 1357	½ x ½	.75
,, 1354	½ x ⅛	.65	,, 1359	¾ x ½	.80



No. 1361.



No. 1341.



No. 1511.



No. 1331.



No. 1336.



No. 1522.



No. 1542.

JOINTS, Insulating, Macallen (Continued).

Combined Electrolier Tripod and Hickey Separable Joint.

With double outlets for wires and no passage through insulation.

In Malleable Iron Only.

	Size.	List Price.		Size.	List Price.
No. 1361	$\frac{3}{8}$ x $\frac{1}{8}$	$ .60	No. 1365	$\frac{1}{2}$ x $\frac{1}{4}$	$ .70
,, 1362	$\frac{3}{8}$ x $\frac{1}{4}$	.60	,, 1366	$\frac{1}{2}$ x $\frac{3}{8}$	.70
,, 1363	$\frac{3}{8}$ x $\frac{3}{8}$	.65	,, 1367	$\frac{1}{2}$ x $\frac{1}{2}$	.80
,, 1364	$\frac{1}{2}$ x $\frac{1}{8}$	.70			

Double Separable Electrolier Joints.

These joints are designed to use with straight electric fixtures in places where fixtures cannot be turned.

In Malleable Iron Only.

	Size.	List Price.		Size.	List Price.
No. 1341	$\frac{3}{8}$ x $\frac{1}{8}$	$ .60	No. 1345	$\frac{1}{2}$ x $\frac{1}{4}$	$ .70
,, 1342	$\frac{3}{8}$ x $\frac{1}{4}$	.60	,, 1346	$\frac{1}{2}$ x $\frac{3}{8}$	.70
,, 1343	$\frac{3}{8}$ x $\frac{3}{8}$	.65	,, 1347	$\frac{1}{2}$ x $\frac{1}{2}$	.80
,, 1344	$\frac{1}{2}$ x $\frac{1}{8}$	.70			

Incandescent Street Fixture Joints.

As there are various forms of fixtures we list only one size, but can furnish to order any size wanted, with both ends female as illustrated, or one or both ends with male threads.

	Size.	List Price.
No. 1511	$\frac{3}{4}$ x $\frac{3}{4}$	$1.00

Electrolier Joints for Outlet Boxes.

Distance between centres of screw holes 1¼ inches.

In Malleable Iron.

	Size.	List Price.
No. 1331	$\frac{1}{8}$	$ .37½
,, 1332	$\frac{1}{4}$	.37½
,, 1333	$\frac{3}{8}$	.37½

Outlet Box Joint without Hickey.

Distance between centres of screw holes 1½ inches.

In Malleable Iron.

	Size of Stem.	List Price.
No. 1336	$\frac{1}{8}$	$ .30
,, 1337	$\frac{1}{4}$	.30
,, 1338	$\frac{3}{8}$	.30

Furnished to order in composition brass.

Insulated Ball and Socket Joints for Combination Fixtures.

	Size.	List Price.		Size.	List Price.
No. 1522	$\frac{3}{8}$ x $\frac{1}{4}$	$2.25	No. 1529	$\frac{3}{4}$ x $\frac{1}{2}$	$4.00
,, 1523	$\frac{3}{8}$ x $\frac{3}{8}$	2.25	,, 1530	$\frac{3}{4}$ x $\frac{3}{4}$	4.00
,, 1525	$\frac{1}{2}$ x $\frac{1}{4}$	2.75	,, 1531	1 x $\frac{1}{2}$	6.50
,, 1526	$\frac{1}{2}$ x $\frac{3}{8}$	2.75	,, 1532	1 x $\frac{3}{4}$	6.50
,, 1527	$\frac{1}{2}$ x $\frac{1}{2}$	2.75	,, 1533	1 x 1	6.50
,, 1528	$\frac{3}{4}$ x $\frac{3}{8}$	4.00			

Larger sizes to order.

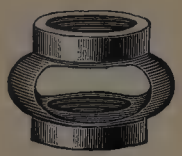
Ball and Socket Joints Not Insulated.

In Plain Brass Finish.

	Size.	List Price.		Size.	List Price.
No. 1542	$\frac{3}{8}$ x $\frac{1}{4}$	$1.50	No. 1549	$\frac{3}{4}$ x $\frac{1}{2}$	$3.00
,, 1543	$\frac{3}{8}$ x $\frac{3}{8}$	1.50	,, 1550	$\frac{3}{4}$ x $\frac{3}{4}$	3.00
,, 1545	$\frac{1}{2}$ x $\frac{1}{4}$	1.75	,, 1551	1 x $\frac{1}{2}$	5.00
,, 1546	$\frac{1}{2}$ x $\frac{3}{8}$	1.75	,, 1552	1 x $\frac{3}{4}$	5.00
,, 1547	$\frac{1}{2}$ x $\frac{1}{2}$	1.75	,, 1553	1 x 1	5.00
,, 1548	$\frac{3}{4}$ x $\frac{3}{8}$	3.00			

Polished brass finish 33⅓ per cent extra.

JOINTS, Insulating, Macallen (Continued).



No. 1450.

Hickeys.

Both ends tapped to standard iron pipe sizes.
Furnished in composition brass to order.
These will not fit insulating joints, the nipples of which are tapped with special straight threads.

Malleable Iron.

	Size.	List Price.		Size.	List Price.
No. 1450	$\frac{1}{8}$ x $\frac{1}{8}$	$ .07½	No. 1462	$\frac{1}{2}$ x $\frac{1}{4}$	$ .12½
,, 1451	$\frac{1}{4}$ x $\frac{1}{8}$	.07½	,, 1463	$\frac{1}{2}$ x $\frac{3}{8}$	.12½
,, 1452	$\frac{1}{4}$ x $\frac{1}{4}$	.07½	,, 1456	$\frac{1}{2}$ x $\frac{1}{2}$	.12½
,, 1453	$\frac{3}{8}$ x $\frac{1}{8}$	.10	,, 1464	$\frac{3}{4}$ x $\frac{1}{2}$	.17½
,, 1454	$\frac{3}{8}$ x $\frac{1}{4}$	.10	,, 1457	$\frac{3}{4}$ x $\frac{3}{4}$	.17½
,, 1455	$\frac{3}{8}$ x $\frac{3}{8}$	.10	,, 1465	1 x $\frac{3}{4}$	.25
,, 1461	$\frac{1}{2}$ x $\frac{1}{8}$	.12½	,, 1458	1 x 1	25

Hickeys Tapped to Fit Insulating Joints.

In Composition Brass.

No.	Size, Inch.	Will Fit Joints Nos.	Price.
1471	$\frac{1}{8}$	1231–36, 1269–70	$ .15
1472	$\frac{1}{4}$	1231–36, 1269–70	.15
1473	$\frac{3}{8}$	1231–36, 1269–70	.15
1474	$\frac{1}{8}$	1201–1206	.20
1475	$\frac{1}{4}$	1201–1206	.20
1476	$\frac{3}{8}$	1201–1206, 1209	.20
1477	$\frac{1}{2}$	1207, 1210	.25
1478	$\frac{3}{4}$	1211, 1214	.35
1479	1	1215	.50

In Malleable Iron.

No.	Size, Inch.	Will Fit Joints Nos.	Price.
1481	$\frac{1}{8}$	1241–1243	$ .07½
1482	$\frac{1}{4}$	1241–1243	.07½
1483	$\frac{3}{8}$	1241–1243	.07½
1484	$\frac{1}{8}$	1221–1226	.10
1485	$\frac{1}{4}$	1221–1226	.10
1486	$\frac{3}{8}$	1221–1226, 1228	.10
1487	$\frac{1}{2}$	1227, 1229	.12½
1488	$\frac{3}{4}$	1230, 1249	.17½
1489	1	1250	.25



No. 1601.

Pneumatic Insulating Joints for Air Brake Equipments.

These joints are tested to 150 pounds air pressure.
High pressure joints to order, tested to any specified pressure not over 500 pounds per square inch.
Extra price according to pressure required.
All joints tapped standard steam pipe sizes, except when specified for Westinghouse equipment.

In Composition Brass.

	Size.	List Price.		Size.	List Price.
No. 1601	$\frac{1}{4}$ x $\frac{1}{4}$	$ .50	No. 1605	1 x 1	$2.75
,, 1602	$\frac{3}{8}$ x $\frac{3}{8}$	.90	,, 1606	1¼ x 1¼	4.00
,, 1603	$\frac{1}{2}$ x $\frac{1}{2}$	1.25	,, 1607	1½ x 1½	6.00
,, 1604	$\frac{3}{4}$ x $\frac{3}{4}$	1.75	,, 1608	2 x 2	10.00



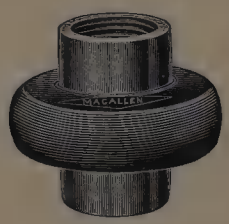
No. 1613.

Hydraulic and Pneumatic Insulating Joints.

These joints are constructed similar to the pneumatic joints, except that they have the additional feature of the interior surface being insulated with the same compound as used on the exterior surface, which gives a hard, smooth finish between the metal connections.
This interior insulation is waterproof, therefore these joints can be used for insulating water pipes or conduits where the latter are exposed to moisture without the danger of the water lodging between the metal parts and forming an electrical bridge.
These joints are tested to 150 pounds air pressure.

In Composition Brass.

	Size.	List Price.		Size.	List Price.
No. 1613	$\frac{1}{2}$ x $\frac{1}{2}$	$1.50	No. 1616	1¼ x 1¼	$4.50
,, 1614	$\frac{3}{4}$ x $\frac{3}{4}$	2.00	,, 1617	1½ x 1½	6.75
,, 1615	1 x 1	3.10	,, 1618	2 x 2	11.00



No. 1624.

JOINTS, Insulating, Macallen (Continued).

Interior Conduit Insulating Joints.

These joints are of a lighter pattern than the hydraulic joints. They are insulated on the interior surface, and the opening through the joint is the same diameter as the inside of pipe, and allows for a smooth passage of wires or cable.

In Composition Brass.	Size.	List Price.	*In Malleable Iron.*	Size.	List Price.
No. 1624	¾ x ¾	$1.75	No. 1634	¾ x ¾	$1.55
,, 1625	1 x 1	2.75	,, 1635	1 x 1	2.50
,, 1626	1¼ x 1¼	4.00	,, 1636	1¼ x 1¼	3.50
,, 1627	1½ x 1½	6.00	,, 1637	1½ x 1½	5.25
,, 1628	2 x 2	10.00	,, 1638	2 x 2	9.00

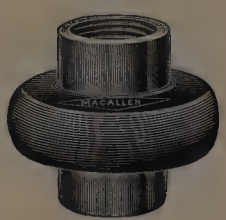
Blank Joints for Insulating Metal Rods.

Tapped machine sizes.

These joints are designed to be inserted in lever, stay, and brace rods, where it is necessary to insulate one part of the rod from the other.

Larger or smaller sizes or tapped to 16th sizes to order. Whitworth or other special threads to order.

Joints as listed should not be used where the voltage exceeds 500. For higher voltages we would be pleased to submit special designs.



No. 1643.

In Composition Brass.

	Size Rod.	Threads.	List Price.
No. 1643	½ x ½	13 U. S. S.	$ .60
,, 1644	⅝ x ⅝	11 ,,	.70
,, 1645	¾ x ¾	10 ,,	.80
,, 1646	⅞ x ⅞	9 ,,	1.00
,, 1647	1 x 1	9 ,,	1.20

In Malleable Iron.

	Size Rod.	Threads.	List Price.
No. 1653	½ x ½	13 U. S. S.	$ .50
,, 1654	⅝ x ⅝	11 ,,	.60
,, 1655	¾ x ¾	10 ,,	.70
,, 1656	⅞ x ⅞	9 ,,	.85
,, 1657	1 x 1	9 ,,	1.00

Canopy Insulators.

These insulators are designed to go between the canopy and the wall, or ceiling, where combination or straight electric fixtures are installed in buildings that are constructed with metallic lathing, or where there are metal ceilings or walls used. The two dimensions given indicate the sizes of canopy that will fit one insulator.



No. B-9.

Size.	*In Standard Brown Compound.* No.	List Price.	*In White Compound.* No.	List Price.
2⅛ and 2¼	B- 9	$ .10	W- 9	$ .15
2⅜ ,, 2½	B-10	.10½	W-10	.16
2⅝ ,, 2¾	B-11	.11	W-11	.17
2⅞ ,, 3	B-12	.11½	W-12	.18
3⅛ ,, 3¼	B-13	.12	W-13	.19
3⅜ ,, 3½	B-14	.12½	W-14	.20
3⅝ ,, 3¾	B-15	.13	W-15	.21
3⅞ ,, 4	B-16	.14	W-16	.22
4⅛ ,, 4¼	B-17	.15	W-17	.23
4⅜ ,, 4½	B-18	.16	W-18	.24
4⅝ ,, 4¾	B-19	.17	W-19	.26
4⅞ ,, 5	B-20	.18	W-20	.28
5⅛ ,, 5¼	B-21	.20	W-21	.30
5⅜ ,, 5½	B-22	.22	W-22	.32
5⅝ ,, 5¾	B-23	.24	W-23	.34
5⅞ ,, 6	B-24	.26	W-24	.36
6⅛ ,, 6¼	B-25	.28	W-25	.38
6⅜ ,, 6½	B-26	.30	W-26	.40
6⅝ ,, 6¾	B-27	.33	W-27	.44
6⅞ ,, 7	B-28	.36	W-28	.48
7⅛ ,, 7¼	B-29	.39	W-29	.52

(*Continued on next page.*)

JOINTS, Insulating, Macallen.

Canopy Insulators (Continued).

Size.			In Standard Brown Compound. No.	List Price.	In White Compound. No.	List Price.
7⅜ and		7½	B-30	$ .42	W-30	$ .56
7⅝	,,	7¾	B-31	.45	W-31	.60
7⅞	,,	8	B-32	.48	W-32	.64
8⅛	,,	8¼	B-33	.51	W-33	.68
8⅜	,,	8½	B-34	.54	W-34	.72
8⅝	,,	8¾	B-35	.57	W-35	.76
8⅞	,,	9	B-36	.60	W-36	.80
9⅛	,,	9¼	B-37	.64	W-37	.85
9⅜	,,	9½	B-38	.68	W-38	.90
9⅝	,,	9¾	B-39	.72	W-39	.95
9⅞	,,	10	B-40	.76	W-40	1.00
10⅛	,,	10¼	B-41	.80	W-41	1.06
10⅜	,,	10½	B-42	.84	W-42	1.12
10⅝	,,	10¾	B-43	.88	W-43	1.18
10⅞	,,	11	B-44	.92	W-44	1.24
11⅛	,,	11¼	B-45	.96	W-45	1.30
11⅜	,,	11½	B-46	1.00	W-46	1.37
11⅝	,,	11¾	B-47	1.05	W-47	1.43
11⅞	,,	12	B-48	1.10	W-48	1.50
12⅛	,,	12¼	B-49	1.15	W-49	1.56
12⅜	,,	12½	B-50	1.20	W-50	1.63
12⅝	,,	12¾	B-51	1.25	W-51	1.70
12⅞	,,	13	B-52	1.30	W-52	1.77
13⅛	,,	13¼	B-53	1.35	W-53	1.84
13⅜	,,	13½	B-54	1.40	W-54	1.90
13⅝	,,	13¾	B-55	1.45	W-55	1.97
13⅞	,,	14	B-56	1.50	W-56	2.04
14⅛	,,	14¼	B-57	1.55	W-57	2.10
14⅜	,,	14½	B-58	1.60	W-58	2.17
14⅝	,,	14¾	B-59	1.65	W-59	2.24
14⅞	,,	15	B-60	1.70	W-60	2.30

Square Canopy Insulators.



No. Sq. B-16.

Size.		In Standard Brown Compound. No.	List Price.	In White Compound. No.	List Price.
4	inch	Sq. B-16	$ .28	Sq. W-16	$ .37
4¼	,,	Sq. B-17	.30	Sq. W-17	.40
4½	,,	Sq. B-18	.32	Sq. W-18	.43
4¾	,,	Sq. B-19	.34	Sq. W-19	.46
5	,,	Sq. B-20	.36	Sq. W-20	.49
5¼	,,	Sq. B-21	.40	Sq. W-21	.53
5½	,,	Sq. B-22	.44	Sq. W-22	.57
5¾	,,	Sq. B-23	.48	Sq. W-23	.61
6	,,	Sq. B-24	.52	Sq. W-24	.65

Hexagonal Canopy Insulators.


No. Hx-B-16.

Size.		In Standard Brown Compound. No.	List Price.	In White Compound. No.	List Price.
4	inch	Hx-B-16	$ .28	Hx-W-16	$ .37
4¼	,,	Hx-B-17	.30	Hx-W-17	.40
4½	,,	Hx-B-18	.32	Hx-W-18	.43
4¾	,,	Hx-B-19	.34	Hx-W-19	.46
5	,,	Hx-B-20	.36	Hx-W-20	.49
5¼	,,	Hx-B-21	.40	Hx-W-21	.53
5½	,,	Hx-B-22	.44	Hx-W-22	.57
5¾	,,	Hx-B-23	.48	Hx-W-23	.61
6	,,	Hx-B-24	.52	Hx-W-24	.65

JUNCTION Box (see B).

JUPITER Insulator (see Hangers).

JUPITER Cross Arm (see Arms).

KETTLES, Electric.



No. 1410.

Electric Frying Kettles.

Cast steel, polished inside and out. Lard or oil too hot is unsatisfactory for frying purposes, and as the working temperature of these kettles has been carefully determined, the operator gets exactly the right degree of heat each time. Supplied with three feet of flexible conductors, but without plugs unless mentioned.

	Watts.	Price.
No. 1410. 8-in. diam. by 3¾ in. deep. Family size. One heat	825	$12.00
No. 1412. 12 in. diam. by 4 in. deep. Large family size. One heat and plug switch	1200	16.00
No. 1413. 12-in. diam. by 4 in. deep. Restaurant use. Three heats and plug switch	1200	19.00



No. 1651.

Electric Pitch Kettles.

The heater for melting pitch is arranged for three working heats, a large amount for heating the pitch from the cold, a moderate amount of heat for use when the surface of the pitch is being constantly agitated, a small amount of heat for maintaining temperature when the pitch is not being used. This heater is especially adapted for heating fluids and bodies that liquefy at temperatures not exceeding 500 degrees Fahrenheit. Vessel made of cast iron, finished smooth.

Complete with four feet of cord, and three-heat plug switch.

No.	Watts Required. Low.	Med.	High.	Price.
1651. 12-in. diam. by 2½ in. deep	330	660	1300	$20.00
1652. 15 ,, ,, ,, 2½ ,, ,,	400	800	1600	26.00



No. 1872.

Electric Tea Kettles.

" Afternoon tea " has become an institution in this country, and the electric tea kettles shown complete the table furnishings in a most satisfactory manner, and are much used. The silent electric current quickly supplies the necessary heat without the use of alcohol, matches, or flame, and the kettles, being removable, leave a convenient ornamental heater for warming wafers or biscuits. The heaters have regulating switches. Finish and workmanship of the best. Highly finished in silver or nickel plate.

	Watts.	Price.
No. 1872. 1 qt. kettle, nickel plated; heater, 6 in. diam., 3 heats, cord, no plug	440	$15.00
No. 1873. 1 qt., silver plated, 3 heats, cord, no plug	440	20.00
No. 1253. 1 qt. kettle, nickel plated; heater, 4½ in. diam., 3 heats, cord and plug	250	12.85
No. 1254. Same, silver plated	250	18.75
,, 0253. Kettle only, no heater, nickel plated		4.00



No. 1253.



Plain Tea Kettles.

Plain Tea Kettles.

For use with electric stoves.

Copper, nickel plated. They are arranged to overhang and lock fast to the stoves.

	Price.
No. 0760. 1½ pt. tea kettle, fits stoves Nos. 1701 and 1731	$1.40
No. 0761. 3 pt., same, fits stoves Nos. 1702 and 1732	2.00
,, 0762. 2 qt., ,, ,, ,, ,, 1703 ,, 1733	2.50
,, 0763. 4 ,, ,, ,, ,, ,, 1704 ,, 1734	3.25
,, 0764. 10 ,, ,, ,, ,, ,, 1705 ,, 1735	5.50
,, 0257. Kettle only to fit stove No. 1788	4.75



No. 0257.

G. E. Electric Tea Kettles.

The smallest size may be attached to lighting circuit, but above the 2-quart kettle, heating circuit outlets should be used. When filled with cold water these kettles are brought to boiling in from a quarter to half an hour.

(*Continued on next page.*)



No. 45274.

KETTLES, Electric.

G. E. Electric Tea Kettles (Continued).

		Watts.	Volts.	Qt.	Each.
No. 45274		160–575	95–105	2	$12.75
,, 45275		160–575	106–115	2	12.75
,, 45276		160–575	116–125	2	12.75
,, 45277		160–575	200–225	2	12.75
,, 45278		160–575	226–250	2	12.75
,, 45279	3-heat	300–575–1050	95–105	4	16.00
,, 45280	3 ,,	300–575–1050	106–115	4	16.00
,, 45281	3 ,,	300–575–1050	116–125	4	16.00
,, 45282	3 ,,	300–575–1050	200–225	4	16.00
,, 45283	3 ,,	300–575–1050	226–250	4	16.00

KEY and Keyless Sockets (see S).

KEYS, Gas.



Style A.

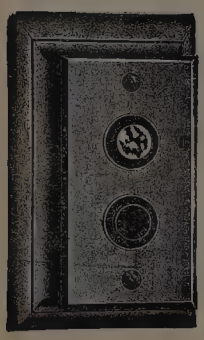
Style A Metal Key

(see Mats).

Our metal gas-lighting keys are finely finished, have best quality pearl buttons, genuine German silver springs, raised strap for battery connections, and are made with a wide margin around the wood back.

Furnished in nickel plate only, except on special orders.

		List Price, Ea.
No. 22309	2-button key, 1 auto	$ .55
,, 22310	4 ,, ,, 2 ,,	.85
,, 22311	6 ,, ,, 3 ,,	1.20
,, 22312	8 ,, ,, 4 ,,	1.60
,, 22313	10 ,, ,, 5 ,,	2.20
,, 22314	12 ,, ,, 6 ,,	2.70



Style D.

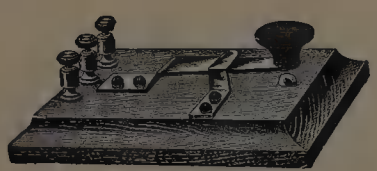
Style D Wood-Base Automatic Key.

This key has rubbing inside contact points, pearl buttons, and nickel trimmings. New style and elegant goods. Made in fine finished oak bases. For other woods a reasonable extra price will be charged.

No. 22315	2-button key, 1 auto	$ .55
,, 22316	4 ,, ,, 2 ,,	.85
,, 22317	6 ,, ,, 3 ,,	1.20
,, 22318	8 ,, ,, 4 ,,	1.60
,, 22319	10 ,, ,, 5 ,,	2.20
,, 22320	12 ,, ,, 6 ,,	2.70

Other sizes made to order and charged accordingly. Suitable screws furnished with all keys.

KEYS, Strap.



Strap Key.

Strap Keys.

Open and closed circuit keys have two binding-posts. Double circuit keys have three posts. Made with walnut or oak bases.

No. 1591.	Open circuit ..... each,	$ .65
,, 1592.	Closed circuit ..... ,,	.60
,, 1593.	Double circuit ..... ,,	.75

Heavy Strap Keys.

Western Union type, made for heavy work and will stand hard usage. Intended for telegraph and block signal work. Has large platinum contacts.

No. 1020.	Open circuit ..... each,	$1.00
,, 1021.	Closed circuit ..... ,,	1.00
,, 1022.	Double circuit ..... ,,	1.25

KEY, Switch (see Switches, snap, flush, and push).
KEYS, Telegraph (see Instruments, telegraph).
KING Bell (see Bells, monitor).
KISINGER Splicing Sleeve (see Splicers).

KIT.



Repair Kit.

Fuse Repair Kit.

The Chicago fuse repair kit consists of a metallic cylindrical case containing five sizes of fuse wire and a set of assorted fuse links in handy form for electricians' use. Size, 1½ inch diameter by 7 inches long.

No. S-1640. Fuse repair kit ..... each, $2.00

KITCHEN Tables (see Tables).
KLEIN'S Clamps (see Come-Alongs).



No. 371. No. 365. No. 366.

KNIVES.

Electricians' Pocket Knives.

The Empire knives are designed especially for electricians' work. The side of the screw driver is ground to a knife edge for use in scraping insulation from wires, etc. Shuts up like an ordinary pocket knife for convenience in carrying. Blades lock when open.

No. 371. Screw driver with knife edge on side, no other blades .....each, $ .70
No. 365. Screw driver with knife edge and one regular knife blade .....each, 1.00
No. 366. Screw driver with knife edge and one large knife blade, especially useful to linemen .....each, 1.20

KNIFE Switches (see S).

KNOB Hangers (see Hangers, Hooks, Pulleys, etc.).

KNOBS, Porcelain (see Insulators).

KNOBS, Wiring (see Cleats).

K. W. Cut-Out (see Rosettes).



Climax Step Ladder.



Ladle.

LACQUER (see Colorine).

LADDERS.

Climax Step Ladders No. S-1643.

A strong light ladder, all parts put together with rivets.

When closed it is very compact occupying no more room than the ordinary ladder, but when open the legs spread wide apart, making a very secure ladder for electricians and wiremen, and one which is not likely to tip over. Regular sizes, 6 to 18 feet. Made to order up to 25 feet.....per ft., $ .70

LADLES.

Melting Ladles (see Pots).

For handling melted solder, etc. Malleable iron, double lipped.

		Per Doz.
No. S-1644.	3-in. bowl, holds 1½ lbs. metal.....	$2.00
,, S-1645.	4 ,, ,, ,, 3½ ,, ,, ...	3.25
,, S-1646.	5 ,, ,, ,, 7 ,, ,, ...	5.60
,, S-1647.	6 ,, ,, ,, 12 ,, ,, ...	7.25

LAG Screws (see S).

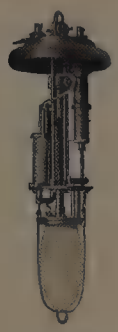
LAMPS, see following headings:
Lamps, Alcohol (see Torches).
,, Arc.
,, Automobile (see Lights).
,, Desk (see Lamps, portable).
,, Hand (see Lamps, portable).
,, Incandescent, — Hylo, Gem, Tantalum and Miniature.
,, Portable, — Desk, Hand, Orchestra, and Ever Ready.

LAMPS, Alcohol (see Torches).

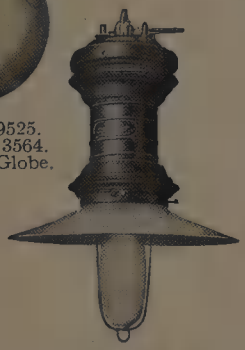
LAMPS, Arc.



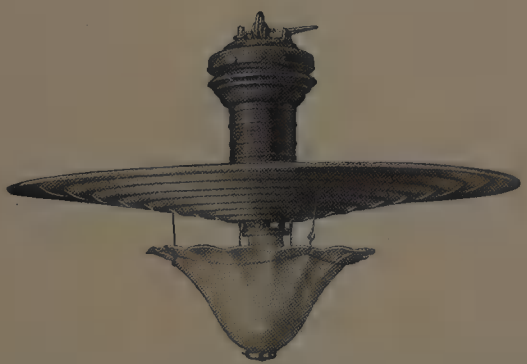
Lamp, No. 9525.
Casing, No. 3564.
Closed Base Globe.



No. 9525.
Without Casing.



Lamp, No. 9525. Casing, No. 3545.
Reflector, No. 13261.



Lamp No. 9525 with Diffuser, No. 27571. Lower Shade, 2855. Adapter, 37567.



Lamp, No. 9526. Casing, No. 3516. Open Base Globe.

G. E. Arc Lamps.

The G. E. Arc Lamps are equipped with either a black enameled or streaked oxidized copper finished casing, of which the black enamel finish is the more suitable for outdoor service. Where conditions are especially severe, a solid copper casing with black oxidized finish can be supplied.

The lamp top and the binding-posts are waterproof, and a waterproof hood is provided for the switch.

The lamps are made with two styles of enclosing globes, one of which has an open base and the other a closed base.

Dashpots have brass shells and graphite plungers.

Clutch is extremely simple and may easily be replaced if worn.

Enclosing cap for the inner globe has a small spiral passage several inches in length connecting the space inside with the outer air, which acts as a gas chamber preventing the direct entrance of air at the time when cooling causes the gases to contract.

In the closed base type of lamp the enclosing globe is supported by means of a bail fastened to the gas cap by specially designed piston springs; in the open base type by a combination globe and carbon holder.

(Net prices on arc lamps quoted on application.)

D. C. 110–125 Volts, Multiple.

Closed Base Globes.

Amps.	Carbon.	Globe or Reflector.	Lamp No.	Casing No.	Inner Globe No.
5	12 x ½	13261	9525	†3545	46
3¼	12 x ⅜	13261	9528	*3559	46
5	12 x ½	5	9525	‡†3564	46
3¼	12 x ⅜	5	9528	‡*3567	46

Open Base Globes.

5	12 x ½	1	9526	†3516	3
3¼	12 x ⅜	1	9529	*3558	3
5	12 x ½	13261	9527	†3545	3
3¼	12 x ⅜	13261	9530	*3559	3
5	12 x ½	5	9527	‡†3564	3
3¼	12 x ⅜	5	9530	‡*3567	3

* Streaked oxidized copper casing finish.
† Black enamel casing finish.
‡ Inclusive of a supporting ring with chain, screws, and nuts.

The finish does not necessarily refer to the material of which the casing is made.

In ordering always specify the catalogue numbers of the lamp and the casing, and also the kind of enclosing globe and outer globe or reflector required.



Lamp, No. 9535 with External Cut-Out and Resistance.



Lamp, No. 9535. Casing, No. 3564.



No. 9535. Interior.



Lamp, No. 9536. Casing, No. 3516.



Lamp, No. 9535. Casing, No. 3545.



Lamp, No. 9537. Casing, No. 3545. Reflector, No. 13261.



Lamp, No. 9537.



Lamp, No. 9532.



Lamp, No. 9533. Casing, No. 3516.

LAMPS, Arc.

G. E. Arc Lamps (Continued).

D. C. { **Two in Series, on 220 Volts.** / **Five in Series, on 550 Volts.**

Closed Base Globes.

Amps.	Carbon.	Globe or Reflector.	Lamp No.	Casing No.	Inner Globe No.
5	12 x ½	13261 or 23979	9535	†3545	46
				§3563	46
				*3559	46
5	12 x ½	5	9535	‡†3564	46
				‡§3565	46
				‡*3567	46

Open Base Globes.

5	12 x ½	1	9536	†3516	3
				§3562	3
				*3558	3
5	12 x ½	13261 or 23979	9537	†3545	3
				§3563	3
				*3559	3
5	12 x ½	5	9537	‡†3564	3
				‡§3565	3
				‡*3567	3

D. C. 220 Volts Multiple.

Closed Base Type.

3	12 x ½	13261	9532	†3545	36
				§3563	
				*3559	
3	12 x ½	5	9532	†3564	36
				§3565	
				*3567	

Open Base Type.

3	12 x ½	1	9533	†3516	3
				§3562	
				*3558	
3	12 x ½	13261	9534	†3545	3
				§3563	
				*3559	
3	12 x ½	5	9534	‡†3564	3
				‡§3565	
				‡*3567	

The finish does not necessarily refer to material of which casing is made.

* Streaked oxidized copper casing finish (zinc).
† Black enamel casing finish (zinc).
§ Black oxidized copper casing finish.
‡ Includes supporting rings, chains, screws, and nuts.

NOTE. — In ordering always specify catalogue number of the lamp and the casing, and also the kind of enclosing globe and outer globe or reflector required. Note the above lamps are equipped with ornamental type casings instead of plain type, as furnished heretofore. Plain type casings may be obtained if desired.



Lamp, No. 8584.
Casing, No. 3597.



No. 8584.
Interior.



Lamp, No. 8585.
Casing, No. 3599.
Reflector, No. 13261.



Lamp, No. 8585.
Casing, No. 27390.



No. 8585.
Interior.



Lamp, No. 9182.
Casing, No. 3545.
Reflector, No. 13261.



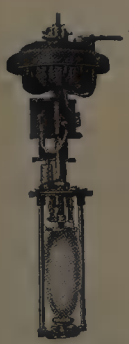
No. 9182.
Interior.



No. 9090.
Interior.



Lamp, No. 9096.
Casing, No. 3564.



No. 9096.
Interior.



Lamp, No. 9564.
Casing, No. 3545.
Reflector, No. 13261.

LAMPS, Arc.

G. E. Arc Lamps
(Continued).

D. C. 6.6 Amp. Series Circuits.

Open Base Globes.

Amps.	Carbon.	Globe or Reflector.	Lamp No.	Casing No.	Inner Globe No.
6.6	12 x ½	10	8584	§3596	3
6.6	12 x ½	10	8584	*3597	3

Closed Base Globes.

6.6	12 x ½	13261	8585	§3598	46
				*3599	46
6.6	12 x ½	11	8585	‡§27389	46
				‡*27390	46

A. C. 100–120 Volts, Multiple.

Closed Base Globes.

4	12 x 7/16	13261	9099	†3545	49
6	12 x ½		9182	§3563	
7½	12 x ½		9524	*3559	49
4	12 x 7/16	9	9099	‡†3564	49
6	12 x ½		9182	‡§3565	
7½	12 x ½		9524	‡*3567	49

Open Base Globes.

4	12 x 7/16	10	9060	†3516	7
6	12 x ½		9090	§3562	
7½	12 x ½		9091	*3558	
4	12 x 7/16	13261	9095	†3545	7
6	12 x ½		9096	§3563	
7½	12 x ½		9098	*3559	
4	12 x 7/16	9	9095	‡†3564	7
6	12 x ½		9096	‡§3565	
7½	12 x ½		9098	‡*3567	

A. C. 220 or 440 Volts, Multiple.

Closed Base Globes (220 Volts).

6	12 x ½	13261	9564	†3545	49
				§3563	
				*3559	
6	12 x ½	9	9564	†3564	49
				§3565	
				*3567	

Closed Base Globes (440 Volts).

6	12 x ½	13261	9568	†3545	49
				§3563	
				*3559	
6	12 x ½	9	9568	‡†3564	49
				‡§3565	
				‡*3567	

The finish does not necessarily refer to material of which casing is made.
* Streaked oxidized copper casing finish.
† Black enamel casing finish.
§ Black oxidized copper casing finish.
‡ Includes supporting ring with chains, screws, and nuts.

In ordering always specify the catalogue numbers of the lamp and casing, and also the kind of enclosing globe and outer globe or reflector required.



No. 3786.
Casing, No. 3545.



No. 8587.
Casing, No. 3516.

LAMPS, Arc.

G. E. Arc Lamps
(Continued).

A. C. 220 or 440 Volts, Multiple.

Open Base Globes (220 Volts).

Amps.	Carbon.	Globe or Reflector.	Lamp No.	Casing No.	Inner Globe No.
6	12 x ½	10	9548	†3516, §3562, *3558	7
6	12 x ½	13261	9549	†3545, §3563, *3559	7
6	12 x ½	9	9549	‡†3564, ‡§3565, ‡*3567	7

Open Base Globes (440 Volts).

Amps.	Carbon.	Globe or Reflector.	Lamp No.	Casing No.	Inner Globe No.
6	12 x ½	10	9566	†3516, §3562, *3558	7
6	12 x ½	13261	9567	†3545, *3563, §3559	7
6	12 x ½	9	9567	‡†3564, ‡§3565, ‡*3567	7

A. C. Series Circuits.

Closed Base Globes.

Style of outer globe or reflector, Nos. 8 Outer and 23979 Reflector.

Amps.	Carbon.	Globe or Reflector.	Lamp No.	Casing No.	Inner Globe No.
6.6, 7.5	12 x ½	60, 60	3786, 3787	†3545	39
6.6, 7.5	12 x ½	60–125, 60–125	8447, 8449	§3563	39

Open Base Globes.

Style of outer globe or reflector, 1 Outer and 2856 Reflector.

Amps.	Carbon.	Globe or Reflector.	Lamp No.	Casing No.	Inner Globe No.
6.6, 7.5	12 x ½	60, 60	8587, 8588	†3516	7
6.6, 7.5	12 x ½	60–125, 60–125	8589, 9059	§3562	7



No. 9542.



No. 9541.

Arc Lamps for use with Diffuser Ceilings.

D. C. Multiple, 110–125 Volts.

Amps.	Carbon.	No. of Lamp Shade.	Lamp No.	Inner Globe No.
6–6½–7	12 x ½	36847	9542	3½

A. C. Multiple, 100–120 Volts.

7½–8–9	9½ x ½	36847	9541	3½

We are prepared to furnish arc lamps with concentric diffusers of various styles. Write for full information and prices.

The finish does not necessarily refer to the material of which casing is made. In ordering always specify the catalogue numbers of the lamp and the casing, and also the kind of enclosing globe and outer globe or reflector required.

* Streaked oxidized copper casing finish.
† Black enamel casing finish.
§ Black oxidized copper casing finish.
‡ Inclusive of a supporting ring with chains, screws, and nuts.

LAMPS, Arc (Continued).



"Excello" Arc Lamp.

The "Excello" Flaming Arc Lamp.

These lamps give an intensely brilliant fire ball effect, very much greater than regular arc lamps and particularly adapted to lighting large areas and for producing striking effects in street lighting, for advertising, theatres, parks, etc.

They burn two in series on 100–125 volts, either direct or alternating, or four in series on 220–240 volts, and may be used on series alternating current circuits as high as 2,000 volts, same as direct current lamps, provided a safety coil is connected up with each lamp with an isolating and grounding switch.

When the voltage exceeds 125 volts a blow-out magnet extinguishes the arc when the carbons are consumed making a safe lamp to operate on all commercial circuits.

The carbons are fed downwards at an angle toward each other so that the arc is always maintained in the same position and all of its light is available.

Where sets of lamps are ordered, a series number plate is attached to base plate to indicate which lamps are to be burned in a series. After testing they are sealed with a lead seal and no further adjustments are necessary.

Special Excello carbons with metallic core and chemical impregnation must be used in these lamps to get their advertised light effects, and they are furnished to give a golden yellow, or intense white, as desired, the yellow being the most effective.

The lamps require no inner globe.

These lamps give four or more times as much light in actual mean hemispherical candle-power as the ordinary open arc for the same consumption of current.

The 10-ampere lamp is standard, all others requiring 6 or 8 weeks for delivery.



"Excello" Arc Lamp with Flat Globe.

Direct Current Lamps, Pattern U. N.

	Size E.	Size F.
6-, 8-, 10-, or 12-ampere lamps, black finish	$55.00	$67.50
Reflector extra (if desired)	1.25	1.25

Length over all, style E, 36 inches.
" " " " F, 45 "
Weight complete, style E, 40 pounds.
" " " F, 51 "
Diameter of globes, 11½ inches.

Alternating Current Lamps, Pattern M. U. N.

8-, 10-, or 12-ampere lamps, black finish	$55.00	$67.50
Reflector extra (if desired)	1.25	1.25

Length over all, style E, 36 inches.
" " " F, 45 "
Weight complete, style E, 40 pounds.
" " " F, 51 "
Diameter of globes, 11½ inches.

Extras for above Lamps.

Line resistance for one lamp, either direct or alternating...each, $5.50
Starting resistances for high voltage circuits (on application).
Automatic cut-outs:
Type 14, with compensating resistances (D. C. circuits) for bolting to wall or wood block.....each, 13.25
With two insulators for higher voltages ..... " 16.50
Safety coils:
Hanging type (A. C. circuits).
34 size A enables one or two lights to be extinguished..each, 8.00
34 " B " three or four lights to be extinguished, each, 11.00
Choking coils, transformer:
Prices quoted on receipt of full details only.
Spare outer globes, size No. 131 .....each, 1.50
" inner " " " 129..... " .50
Economizers, any size..... " .20



"Excello" Miniature Arc Lamp.

LAMPS, Arc.

The "Excello" Flaming Arc Lamp (Continued).

Extras for Above Lamps.

Carbons for D. C. lamps, — Positive No. 104, "Excello."
Negative ,, 105, ,,

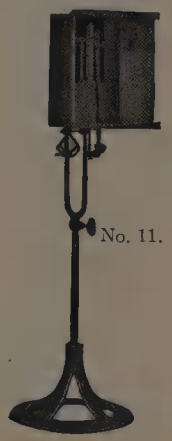
For Lamp Size.	Amps.	Volts.	Diam. Pos.	Diam. Neg.	Length.	Life.	Per 100 Pairs.
E	6	44	8 mm.	7 mm.	15¾ in.	9 hrs.	$12.16
F	6	44	8 ,,	7 ,,	23½ ,,	15½ ,,	16.65
E	8	45	9 ,,	8 ,,	15¾ ,,	10 ,,	13.35
F	8	45	9 ,,	8 ,,	23½ ,,	17 ,,	18.00
E	10	46	10 ,,	9 ,,	15¾ ,,	10½ ,,	14.65
F	10	46	10 ,,	9 ,,	23½ ,,	17½ ,,	19.35
E	12	47	11 ,,	10 ,,	15¾ ,,	10½ ,,	15.50
F	12	47	11 ,,	10 ,,	23½ ,,	17½ ,,	21.40

Life of carbons above is without inner globe.

Carbon for A. C. Lamps, No. 70 "Excello."

For Lamp Size.	Amps.	Volts.	Diam.	Length.	Life.	Per 100 Pairs.
E	8	44	7 mm.	15¾ in.	10 hrs.	$12.46
F	8	44	7 ,,	23½ ,,	16 ,,	16.70
E	10	45	8 ,,	15¾ ,,	10½ ,,	13.92
F	10	45	8 ,,	23½ ,,	17 ,,	18.55
E	12	46	9 ,,	15¾ ,,	11¼ ,,	15.20
F	12	46	9 ,,	23½ ,,	18 ,,	20.00

Life of carbons above is without inner globe.



No. 11.

"Excello" Miniature Arc Lamp.

This is a small arc lamp of high efficiency for general illumination.

Takes 2 amperes of current and gives nearly one candle-power per watt consumed. This is an increased light output of nearly 4 to 1 over ordinary incandescent lamps.

The case of the indoor type is of bronze, polished and ventilated and insulated from the circuit.

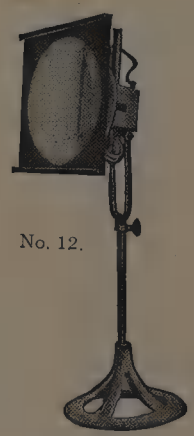
One globe only is used although two globes can be furnished if desired. Adjustment is done once for all before lamp leaves the factory, except the separate wall resistance which is varied after the installation to suit voltage of circuit.

Length of lamp, 16 inches.

Weight, 4¼ pounds.

Burns, 18 hours.

Pattern No. 103. Miniature "Excello" lamp ..... each, $16.50
,, ,, 100. ,, ,, ,, ... ,, 17.50
,, ,, 97. ,, ,, ,, ... ,, 18.50
Carbons for above ..... per 100, 2.50



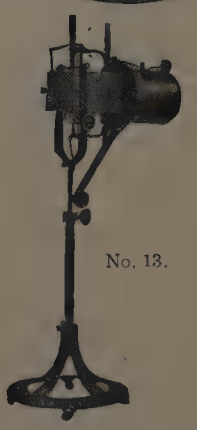
No. 12.

Resistances for one lamp on 100–110 volts or for two lamps on 200–220 volts at no extra charge.

Bogue Theatre Lamps.

No. 11. Automatic lamp, with stand and rheostat, complete with olivette or color box ..... net, each, $47.50
Ditto with hand feed lamp ..... ,, 37.50
Olivette or color box only ..... ,, 7.50
Automatic lamp, stand, and rheostat ..... ,, 40.00
Hand feed lamp, stand, and rheostat ..... ,, 30.00

No. 12. Automatic lamp, with stand and rheostat, complete with circular color box ..... net, each, $47.50
Ditto with hand feed lamp ..... ,, 37.50
Olivette or color box only ..... ,, 7.50
Automatic lamp with stand and rheostat .... ,, 40.00
Hand feed lamp with stand and rheostat..... ,, 30.00



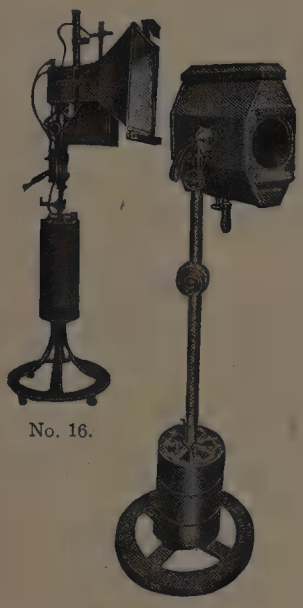
No. 13.

No. 13. Automatic lamp, with stand and rheostat, complete with lens box for spot light or chaser ..... net, each, $57.50
Ditto with hand feed lamp ..... ,, 47.50
Lens box only ..... ,, 17.50
Automatic lamp, stand, and rheostat ..... ,, 40.00
Hand feed lamp, stand, and rheostat ..... ,, 30.00

(*Continued on next page.*)

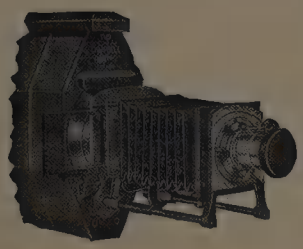


No. 15. No. 14.



No. 16.

No. S-1648.



No. S-1649.



Edison. T.-H. Westinghouse.

LAMPS, Arc.

Bogue Theatre Lamps (Continued).

No. 14. Automatic lamp, with stand and rheostat, complete with horizontal feed carbons and reflector for electric fountain, or complete with perpendicular feed and reflector for balcony light, net, each, $47.50
Balcony reflector only ..... ,, 17.50

No. 15. Spot light including lamp, stand, and rheostat complete with lens box, hand feed ... net, each, 47.50
Lens box only ..... ,, 17.50

No. 16. Protected stage light including lamp, stand, rheostat, and color box, automatic feed net, each, 47.50
Color box only ..... ,, 7.50

Campbell Spot Lights for Theatres.

These lights give from 3,000 to 5,000 candle-power. The hood is of heavy planished iron, with door in one side for adjustments of feed, etc. Ends of aluminum castings with grooves for attachments, such as rain, snow, water ripple effects, etc. Lens of any size furnished, although 6-inch is regular, and may be instantly removed by compressing ends of holder ring.

The feed is simple and strong, allowing carbons to be adjusted at any angle and focussed for large or small spot. Stand is telescopic, of 1½-inch iron pipe, and adjusts from 3½ to 8 feet. A heavy cast-iron base with greatest weight at outside edge prevents lamp tipping over. Handles are nickel plated.

Rheostat has top and bottom castings of iron and fits on stand. The resistance wire is insulated by mica and will stand 20 amperes with but slight heating. One or more coils may be easily cut out by changing one of the ring nuts on top of rheostat. Contains no fibre or asbestos or anything that will char or break.

A 35-ampere covered switch easily slips from the stand with all connections intact.

Weight complete, including rheostat, 50 lbs.

No. S-1648. Spot light, including lens ..... each, $70.00

Stereopticon Attachment.

This attachment consists of aluminum castings connected with telescopic brass rods, one condensing lens, projecting lens of size and quality as desired, bellows, and slide carrier. Parts are nickel plated and highly polished. The whole is readily attached to the spot light and held in place in grooves by a thumbscrew.

No. S-1649. Attachment only ..... each, $20.00
,, S-1650. Color medium ..... ,, .70

LAMPS, Automobile (see Lights).
LAMPS, Desk (see Lamps, portable).
LAMPS, Hand (see Lamps, portable).
LAMPS, Incandescent.

Incandescent Lamps.

In ordering lamps, *always* state the candle-power, voltage, base, and whether plain, frosted, or colored lamps are wanted.

Prices given are for Edison lamps only. For other bases, add the following:

Westinghouse and Combination Edison-Westinghouse ..... each, $ .02½
Thomson-Houston ..... ,, .02½
Ediswan ..... ,, .03
United States, Brush-Swan, and Schaeffer ..... ,, .05
For superficial coloring add 25%
For natural colored glass add to price of lamp 2 to 32 c. p.,—
Green or blue glass ..... ,, $ .10
Purple glass ..... ,, .15
Ruby and opal glass ..... ,, .20
Amber and canary ..... ,, .25
For tipless lamps, add ..... ,, .02

LAMPS, Incandescent.

Incandescent Lamps (Continued).

Regular Lamps, 45 to 130 Volts (including Sign Lamps and Railway Series).



Regular Lamp.

Candle-Power.	Max. Diam. Bulb in ⅛'s of Inch.	Volts.	Std. Pkg. not less than Q'ty below.	Prices. Plain Lamps.	Prices. Frosted Lamps.
2, 3, 4, 5, 6, 8, 10, 12, 16 20 (3.1 & 3.6 w. p. c.) 24 (3.1 w. p. c.)	21	45 to 130	200	$ .20	$ .22½
*20 (4 w. p. c.) 24 (3.6 & 4 w. p. c.) 32 and 50	25	45 to 130	100	.30	.33
100	40	45 to 130	20	1.00	1.04
150, except navy dvg.	40	45 ,, 130	20	1.50	1.54

* 20 c. p., 4 w. p. c. and 24 c. p., 3.6 w. p. c. and 4 w. p. c., when furnished in bulbs not larger than 2⅜-inch diameter may be sold at 16 c. p. prices.

Regular Lamps, 200 to 250 Volts.

8, 10, 16	21	20 to 44 and 200 to 250	200	$ .22	$ .24½
20, 24	21	20 to 44 and 200 to 250	200	.30	.32½
32, 50	25	200 ,, 250	100	.40	.43
100	40	200 ,, 250	20	1.50	1.54

Lamps for Voltages below 20 Volts.



Low C. P. Lamp.

Style.	Candle-Power.	Std. Pkg. not less than Q'ty below.	Plain Lamps.
Regular.....	Where c. p. is same or less than voltage of lamp.....	200	$ .25
,, ...	Where c. p. is higher than voltage of lamp, but not exceeding 24 c. p.	200	.35
Round bulb ...	Where c. p. is same or less than voltage of lamp.....	200	.30
,, ...	Where c. p. is higher than voltage of lamp, but not exceeding 24 c. p.	200	.40
Extra charge for frosting:			
	For candle-powers up to and including 16 c. p. and in bulbs not larger than 2⅝ in. in diam., per lamp,		.02½
	For lamps in bulbs over 2⅝ in. and not larger than 3⅛ in. diam.....per lamp,		.03

Irregular Types, 45 to 130 Volts.



Round Bulb Lamp.

Style.	Candle-Power.	Max. Diam. of Bulb in ⅛'s of Inch.	Volts.	Std. Pkg. not less Q'ty than below.	Prices. Plain Lamps.	Prices. Frosted Lamps.
Mill type.....	16	21	100 to 130	200	$ .20	$ .22½
R'd bulb, 2–2½ in...	2 to 16	20	45 ,, 130	200	.25	.27½
,, 3⅛ in.....	16 only	25	45 ,, 130	200	.30	.33
,, 3⅛ ,, ...	32	25	45 ,, 130	100	.40	.43
,, 3⅜–3¾ in....	32 only	30	45 ,, 130	100	.45	.48½
,, ...	50	40	45 ,, 130	100	.75	.78½
Tubular, not over 3½ in. long.....	2 or 4	8	45 ,, 130	200	.20	.22½
,, 4 in. long or over,	8, 10, 16	10	45 ,, 130	200	.30	.32½
,, ,, ,,	32	14	45 ,, 130	100	.55	.58
Stereopticon.....	16 & 20	20	45 ,, 130	100	.40	†
,, ...	32	30	45 ,, 130	50	.50	†
,, ...	50	30	45 ,, 130	50	.75	†
,, ...	100	40	45 ,, 130	20	1.50	†
St. Ry. headlight...	16	21	100 ,, 130	200	.30	.32½
,, ...	32	30	100 ,, 130	100	.50	.53
,, ...	50	30	100 ,, 130	100	.75	.78
Silvered reflector...			45 ,, 130	100	.35	.35
Unsilvered reflec....			45 ,, 130	100	.25	.27½
Navy diving.....	150		75 ,, 130	20	2.50	2.54

† Generally ordered with Bull's Eye Frosting, for which an extra charge of 25 per cent on list is made.





Candle Lamp. Stereopticon.

LAMPS, Incandescent.

Incandescent Lamps (Continued).

Irregular Types, 200 to 250 Volts.

	C. P.	Diam. in ⅛'s.	Volts.	Std. Pkg.	Plain.	Frosted.
R'd bulb	8, 10, 16	20	20 to 44 and 200 to 250	200	$ .30	$ .32½
,,	32	30	200 ,, 250	100	.55	.58
,,	50	30	200 ,, 250	100	.95	.98½
Tubular	16	10	20 to 44 and 200 to 250	200	.45	.47½
,,	32	14	200 ,, 250	100	.80	.83
Stereopt'n	32	30	200 ,, 250	50	.90	.93
,,	50	30	200 ,, 250	50	1.25	1.28
,,	100	40	200 ,, 250	20	2.50	2.54
Sil. reflec.			200 ,, 250	100	.40	.40
Unsil. reflec.			200 ,, 250	100	.30	.32½



Silvered Reflector.





Large Edison Screw Base. T.-H. Cut-Out Base.

Street Series Lamps.

Prices cover lamps based with large Edison base. For lamps with other bases the following additional charges are made per lamp subject to discount:

Thomson-Houston cut-out or alternating circuit base No. 42 ..... $ .04

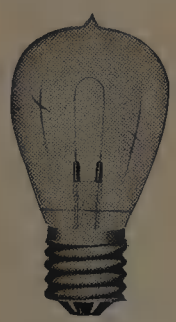
Large Thomson-Houston cut-out or arc circuit base, No. 43 ..... .08

Bernstein base No. 45 and Heisler base, No. 46 ..... .10

Municipal street series lamps fitted with Edison municipal base No. 44 come within range of the 3-ampere class and will take the prices of the latter for corresponding candle-power.

Prices cover 3.5 & 4 W. P. C. plain lamps in pear-shaped bulbs, fitted with large Edison base.

Series lamps with round bulbs will cost additional 15 per cent.



Street Series Lamp.

Candle-Power.	Amps.	No. of Lamps in Std. Pkg.	Price. Plain Lamps.	Frosted Lamps.
16, 20, 25	1.75	50	$ .34	$ .36½
30, 40		50	.39	.42
50	(1.7 to 1.8)	50	.53	.56
20, 25	3	50	.43	.46
30, 40		50	.47	.50
50	(2.75 to 3.20)	50	.53	.56½
20, 25	3.5	50	.47	.50
30, 40		50	.49	.52
50, 65	(3.25 to 3.75)	50	.57	.60½
20, 25	5.5	50	.54	.57
30, 40		50	.58	.61
50, 65	(5.25 to 5.75)	50	.65	.68½
20, 25	(6. to 7.5)	50	.62	.65
30, 40		50	.65	.68
50, 65		50	.72	.75½
75, 100, 125	(5.8 to 7.8)	20	.82	.86
20, 25	(9. to 10)	50	.84	.87
30, 40		50	.88	.91
50, 65		50	.95	.98½
75, 100, 125	(7.9 to 10)	20	1.05	1.09

Turn Bulb Hylo Lamps.

These lamps are so made that when screwed into the socket a slight turn of the bulb will change the candle-power from bright to dim or vice versa.



Turn Bulb Hylo.

Candle-Power.	Base.	Voltage.	List, Each.
1–16	Edison only	50 to 125	$ .60
½–8	,, ,,	100 ,, 120	.60
2–16	,, ,,	200 ,, 250	.65
2–18	,, ,,	100 ,, 120	.60
2–10	,, ,,	100 ,, 120	.60
4–20	,, ,,	100 ,, 120	.60
4–20	,, ,,	200 ,, 250	.65

Standard package 200 lots assorted.

Frosted or dipped lamps, extra, each ..... .05



Pull String Hylo.



Three-Step Pull String Hylo.



Long Distance Hylo.

LAMPS, Incandescent (Continued).

Pull String Hylo Lamps.

These lamps are so constructed that pulling a string changes the candle power of the lamps.

2-step pull string.

Candle-Power.	Base.	Voltage.	List, Each.
1–16–out	Edison only	50 to 125	$ .75
½–8– ,,	,,	100 ,, 120	.75
2–16– ,,	,,	200 ,, 250	.80

3-step pull string.

1– 2–16	Edison only	100 to 120	$ .80
½– 2– 8	,,	100 ,, 120	.80
1– 4–16	,,	100 ,, 120	.80
2–16–18–out	,,	100 ,, 120	.80
2– 8–10– ,,	,,	100 ,, 120	.80
4–16–20– ,,	,,	100 ,, 120	.85
4–16–20– ,,	,,	200 ,, 250	.85
2– 4–16	,,	200 ,, 250	.85

Standard package, 200, assorted.

Long Distance Hylo Lamps.

These lamps have cord and switch attached so that lamp may be operated or extinguished at a distance. The regular length of cord when furnished complete is 2 feet.

2-Step Long Distance. Candle-Power.	Base.	Voltage.	Lamp Only.	Comp. with Cord and Switch.
1–16–out	Edison only	50 to 125	$ .60	$1.25
½– 8– ,,	,,	100 ,, 120	.60	1.25
2–16– ,,	,,	200 ,, 250	.60	1.30
3-Step Long Distance.				
2–16–18–out	Edison only	100 to 120	$ .60	$1.25
2– 8–10– ,,	,,	100 ,, 120	.60	1.25
4–16–20– ,,	,,	100 ,, 120	.60	1.25
4–16–20– ,,	,,	200 ,, 250	.65	1.30
Long distance switch only			each,	.45
2 ft. cord and switch, only			,,	.65
6 ft. ,,	,,		,,	.85
10 ft. ,,	,,		,,	1.05

Standard package, 200 lots, assorted.

These conductor cords and clips not sold separately, as special tools are required to put them on.

Extra length of cord at 5 cents per foot additional to the 10-foot price.

Annex Lyho Lamps.

This lamp is provided with a contact so arranged that a slight turn of the bulb puts the lamp out, but a flexible cord which may be attached to the lamp enables one to use a fan motor, etc., whether the lamp is turned out or not. Cord snaps on to base of lamp.

Candle-Power.	Base.	Voltage.	Lamp Only.
16	Edison only	100 to 120	$ .25
8	,, ,,	100 ,, 120	.52
16	,, ,,	200 ,, 250	.30
Clips and 6 feet of cord, only			.25

Pull String Lyho Lamps.

This lamp has but one filament and does not turn down. The light turns off or on by a pull of the strings. Suitable for fixtures where socket is out of reach.

Candle-Power.	Base.	Voltage.	Lamp Only.
16	Edison only	100 to 120	$ .30
8	,, ,,	100 ,, 120	.30
16	,, ,,	200 ,, 250	.35



Skedoodle Socket Plug.

Skedoodle Socket Plug.

This plug may be used with an ordinary lamp and will flash it intermittently.

For Lamps of	Base.	Voltage.	Std. Pkg.	List, Each.
16 c. p.	Edison	100 to 120	100	$ .75
8 ,,	,,	100 ,, 120	100	.75
16 ,,	,,	200 ,, 250	50	.75

LAMPS, Incandescent (Continued).

Edison Gem High Efficiency Incandescent and Meridian Units.



Gem Incandescent Unit, with Form C Reflector.

These units are a combination of high efficiency filament lamps with scientifically designed reflectors.

The bulbs of the Meridian lamps are supplied tipless and frosted unless otherwise ordered, and are spherical in shape.

The bulbs of the incandescent units are frosted on that part of the line below the line of the maximum diameter of the bulb, and are pear shaped.

These lamps may be used on either alternating or direct current circuits, and they fit regular Edison sockets.

The form D. & S. reflectors distribute the light in a downward direction.

The form B. & C. reflectors concentrate the light in a downward direction.



Gem Incandescent Unit, with Form D Reflector.

Gem Lamps for Incandescent Units.

Lamps only, voltages 90 to 130, regular frosted bowl of bulb, unless otherwise ordered.

No.	Watts.	C. P. with Reflectors, B	C	D	Diam. of Bulb.	Std. Pkg.	Net, Each, Plain.	Net, Each, Frosted.
2	100	60	95	55	$3\frac{1}{8}$ in.	100	$ .35	$ .38
3	125	80	120	70	$3\frac{3}{4}$,,	50	.45	.48½
4	187	110	180	100	$4\frac{3}{8}$,,	30	.65	.69
5	250	150	240	140	5 ,,	20	.80	.85

Gem Meridian Lamps for Meridian Units.

Lamps only, frosted, tipless, will be sent unless otherwise ordered. Nos. *1 and *2 are not made with Gem filament.

No.	Volts.	Watts.	C. P. with S Reflector.	Diam. of Bulb.	Std. Pkg.	Net, Each, Plain.	Net, Each, Frosted.
1	90–130	50	25	$3\frac{3}{4}$ in.	24	$ .40	$ .40
2	90–130	100	55	5 ,,	24	.60	.60
*1	200–250	60	25	$3\frac{3}{4}$,,	24	.50	.50
*2	200–250	120	50	5 ,,	24	.75	.75



Gem Meridian Unit, with Form S-2 Pagoda Reflector.

Shades and Fittings.

		Std. Pkg.	Net, Each.
No. 41441.	Reflector, Type S-1 for No. 1 Meridian	24	$ .40
,, 41442.	,, ,, S-2 ,, ,, 2 ,,	24	.60
,, 43707.	,, ,, B-2 ,, ,, 2 regular	10	.60
,, 41433.	,, ,, C-2 ,, ,, 2 ,,	10	.60
,, 41437.	,, ,, D-2 ,, ,, 2 ,,	10	.60
,, 43708.	,, ,, B-3 ,, ,, 3 ,,	10	.80
,, 41434.	,, ,, C-3 ,, ,, 3 ,,	10	.80
,, 41438.	,, ,, D-3 ,, ,, 3 ,,	10	.80
,, 43709.	,, ,, B-4 ,, ,, 4 ,,	10	1.10
,, 41435.	,, ,, C-4 ,, ,, 4 ,,	10	1.00
,, 41439.	,, ,, D-4 ,, ,, 4 ,,	10	1.00
,, 43710.	,, ,, B-5 ,, ,, 5 ,,	10	1.40
,, 41436.	,, ,, C-5 ,, ,, 5 ,,	10	1.20
,, 41440.	,, ,, D-5 ,, ,, 5 ,,	10	1.20
,, 38596.	Shade holder, Form H, polished brass	24	.10
,, 27873.	Piece ⅛-in. gas pipe $8\frac{3}{8}$ in. long	24	.08
,, 27872.	Extension tubing ¼-in. brass, 7 in. long	24	.20
,, 27874.	Canopy	24	.30
,, 27867.	Crowfoot	24	.08
	Complete fitting including a regular No. 9392 keyless socket with pipe, tubing, canopy, crowfoot, reflector, and shade for No. 1 Meridian lamp	24	1.25
	Ditto for No. 2 Meridian lamp	24	1.45
	Extra length of extension tubing, including gas pipe ..... per ft.,		.45



Form B Reflector.



Tantalum Lamp.



No. 1A. No.1. No. 1B.



No. 3B. No. 4B. No. 4.



No. 6B. No. 6. No. 5B.

LAMPS, Incandescent (Continued).

Tantalum Lamps.

The Tantalum lamp far excels other commercial lamps in efficiency of operation, the current consumption being about one half that of the carbon filament lamp.

It is recommended for use on direct current only as it will give but short life on alternating service, although giving fully as much light.

Tantalum lamps operate at 2 watts per candle-power, and when used with concentrating holophane reflectors will often give light below the reflector at the rate of 1 candle-power per .7 watts consumed.

Clothes rack style of filament. Length over all, 5 inches. Diameter of bulb, 2⅜ inches.

	Std. Pkg.	Each.
No. 1..40 watt regular Tantalum lamps...	100	$ .60
,, 1..40 ,, meridian ,, ,, ..	24	.75
,, 2..80 ,, regular ,, ,, ..	50	.85
,, 2..80 ,, meridian ,, ,, ..	24	1.00
Miniature Tantalum lamps (low voltages)	200	.28

Holophane Pagoda Reflectors for Tantalum Lamps.

Type No. of Reflector.	Holophane No.	Std. Pkg.	Net, Each.
C-T	2685	24	$ .60
D-T	2684	24	.60

Miniature Lamps.

Miniature lamps include all lamps fitted with either Candelabra or Miniature bases, or those having miniature bulbs when unbased (*i. e.*, wire lamps).

A standard package of miniature lamps in candelabra or decorative types must contain not less than 200 lamps, and in battery and telephone types not less than 100 lamps, but assorted lamps may be called standard package quantity when 200 lamps are taken at one time.

Candelabra Lamps.

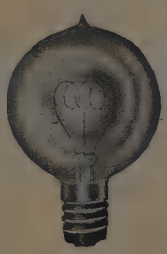
		Plain, Each.
No. 1A.	Candelabra lamp, 8 to 12 c. p., 100–120 volts, candelabra base, multiple	$ .33
No. 1.	Candelabra lamp, 8 to 12 c. p., 100–120 volts, candelabra base, multiple	.33
No. 1B.	Candelabra lamp, 8 to 12 c. p., 100–120 volts, candelabra base, multiple	.28
No. 3B.	Candelabra lamp, 8 to 12 c. p. (*Style A*), 100–120 volts, candelabra base, multiple	.28
No. 4B.	Candelabra lamp, 8 to 12 c. p. (*Style B*), 100–120 volts, candelabra base, multiple	.28
No. 4.	Candelabra lamp, 4 to 6 c. p., 100–120 volts, candelabra base, multiple	.28
No. 6B.	Candelabra lamp, 8 to 12 c. p. (*Style D*), 100–120 volts, candelabra base, multiple	.33
No. 6.	Candelabra lamp, 4 to 6 c. p., 100–120 volts, candelabra base, multiple	.33
No. 5B.	Candelabra lamp, 8 to 12 c. p. (*Style E*), 100–120 volts, candelabra base, multiple	.28

(*Continued on next page.*)


No. 7B.


No. 24B.


No. 10C.


No. 24A.


No. 8.

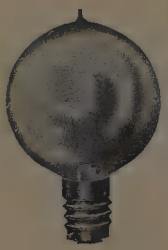

No. 9.


No.10.


No. 87.


No. 9. Tubular.


No. 2.


No. G-12.


No. 17.


No. G-10.


No. 18.


No. 20.

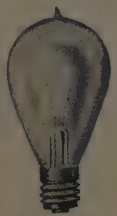

No. 19.


No. 17A.


No. 21.


No. 17B.


No. 18B.


No. 22.

LAMPS, Incandescent.

Miniature Lamps (Continued).

Candelabra Lamps.

		Plain, Each.
No. 7B.	Candelabra lamp, 8 to 12 c. p. (*Style F*), 100–120 volts, candelabra base, multiple	$ .25
No. 24B.	Candelabra lamp, 8 to 16 c. p., 100–120 volts, candelabra base, multiple	.28
No. 10C.	Candelabra lamp, 4 to 5 c. p., 100–120 volts, candelabra base, multiple	.25
No. 24A.	Candelabra lamp, 2 to 4 c. p., 100–120 volts, candelabra base, multiple	.25

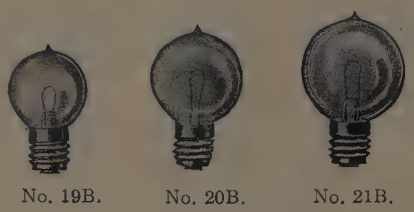
Series Lamps.

		Plain, Each.
No. 8.	Series lamp, 5 c. p. (*Style J*), 100–120 volts, candelabra base, 4 in. series	$ .23
No. 9.	Series lamp, 1 c. p. (*Style I*), 100–120 volts, miniature base, 8 in. series	.23
No. 10.	Series lamp, 3 c. p. (*Style H*), 100–120 volts, miniature base, 8 in. series	.23
No. 87.	Theatre lamp, 1 c. p., 100–120 volts, no base, 16 in series	.21
No. 9.	Tubular lamp, 1 c. p., 100–120 volts, miniature base, 8 in series	.23
No. 2.	Festoon lamp, 3 c. p., 100–120 volts, no base, 8 in. series	.30
No. G-10.	Series lamp, 1 c. p., 100–120 volts, miniature base, 8 in series	.25
No. G-12.	Series lamp, 3 c. p., 100–120 volts, candelabra base, 8 in series	.25

Battery Lamps.

		Plain, Each.
No. 17.	Battery lamp, ½ c. p. (*pear*), 2½–5 volts, miniature base	$ .21
No. 18.	Battery lamp, 1 c. p. (*pear*), 2–6 volts, miniature base	.21
No. 19.	Battery lamp, 2 c. p. (*pear*), 4–7 volts, miniature base	.24
No. 20.	Battery lamp, 3 c. p. (*pear*), 5–7 volts, miniature base	.24
No. 21.	Battery lamp, 4 c. p. (*pear*), 6–8 volts, miniature base	.24
No. 22.	Battery lamp, 6 c. p. (*pear*), 6–10 volts, miniature base	.24
No. 17A.	Battery lamp, ½ c. p. (*round*), 2½–5 volts, miniature base	.21
No. 17B.	Battery lamp, ½ c. p. (*round*), 2½–5 volts, miniature base	.21
No. 18B.	Battery lamp, 1 c. p. (*round*), 3–6 volts, miniature base	.21

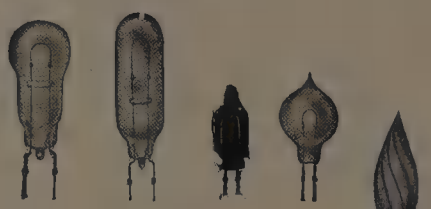
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No. 19B. No. 20B. No. 21B.



No. 22B. No. 10D. No. 26.



No. 28. No. 31. No. 32. No. 33.



No. 90. No. 91. No. 91A. No. 92. Candle Lamp. No. 431.

LAMPS, Incandescent.

Miniature Lamps (Continued).

Battery Lamps.

		Plain, Each.
No. 19B.	Battery lamp, 2 c. p. (*round*), 3–7 volts, miniature base	$ .21
No. 20B.	Battery lamp, 3 c. p. (*round*), 4–6 volts, miniature base	.24
No. 21B.	Battery lamp, 4 c. p. (*round*), 5–8 volts, miniature base	.24
No. 22B.	Battery lamp, 6 c. p. (*round*), 6–10 volts, miniature base	.24
No. 10D.	Automobile lamp, 3 to 6 c. p., 14–60 volts, miniature base	.23
No. 26.	Tipless lamp, ½ to 1 c. p., 3–6 volts, no base	.38
No. 28.	Tipless lamp, ½ to 1 c. p., 3–6 volts, no base	.38
No. 31.	Tipless lamp, ½ to 1 c. p., 3–6 volts, no base	.32
No. 32.	Tip lamp, ½ c. p., 3–6 volts, no base,	.34
,, 33.	Tip lamp, ½ c. p., 3–5 volts, no base,	.27
,, 90.	Tip lamp, ½ to 1 c. p., 3–6 volts, no base	.32
No. 91.	Tip lamp, ¼ to ½ c. p., 4–12 volts, miniature base	.19
No. 91A.	Telephone lamp, ¼ to ½ c. p., 4–40 volts, special base	.19
No. 92.	Tubular lamp, ½ to 1 c. p., 12–40 volts, miniature base	.19

Candle Lamp.

No. 431.	Candle lamp. A convenient device for obtaining the candle effect on fixtures fitted with standard sockets, each,	$ .90

Miniature Lamp Extras.

Frosted lamps, extra, each,	$ .02
Artificially colored ,, ,,	.04
Natural ruby glass, candelabra styles, extra, each,	.20
Natural blue, green, or purple glass, candelabra styles, extra, each,	.07
Natural ruby glass, series and battery styles, extra, each,	.15
Natural blue, green, or purple glass, series and battery styles, extra, each,	.05
German, French, and Ediswan base lamps, extra, each,	.05
Anchoring filament to bulb ,, ,,	.03
Tipless lamps ,, ,,	.04

Standard Package Quantities.

Candelabra or series style ..... 200 lamps
Miniature battery styles ..... 100 ,,

Lamps usually made with base are same price if ordered unbased.

Any of the candelabra styles can be made for burning in series of two, three, or four on 100 to 120 volts, or 200 to 240 volts, in which case the price will be the same as for multiple lamps. For candelabra styles made to burn in multiple on 200 to 240 volts, an extra charge will be made according to the style.

Foreign made lamps of any style of bulb and base can be duplicated at short notice, and special lamps of all kinds can be furnished to order upon receipt of sample or specifications. Price of special lamps will be furnished on application.

LAMPS, Portable.



No. 1560.



Nos. 19 and 1564.



No. 24.



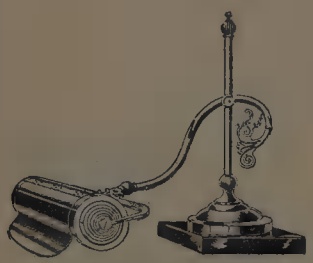
No. 23.



No. 33.



No. 70.



No. 103.



No. 1.

Desk and Table Lamps

(see also Fixtures, adjustable).

No. 1560. S.-H. desk lamp, nickel finish...each, $3.00

,, 1561. ,, ,, ,, antique copper, ,, 3.20

Wiring extra..... ,, 1.00

Front bears on top of desk and rear end clamps on under edge of overhang so that desk is not marred. Has four adjustments, — moves forward and back, may be turned to right or left, yoke swings up and down and cylinder revolves.

No. 19. Dale desk lamp, all finishes.....each, 4.50

Has slate base that may be moved to any part of desk; wiring extra, each, 1.50

No. 1564. Wheeler desk lamp, polished brass, wired .....each, 4.20

No. 1565. Wheeler desk lamp, old brass, wired, each, 4.20

No. 1566. Wheeler desk lamp, antique copper, wired.....each, 4.20

Same as Dale No. 19 except that arm swings up and down. Without wiring deduct .....each, 1.00

No. 24. Dale hood only, not wired.....each, 2.50

Without socket; may be attached to any portable.

No. 23. Dale desk lamp, all finishes.....each, 3.50

Wired extra..... ,, 1.50

No. 33. Dale desk lamp.....each, 1.25

Without shade or wiring.

No. 70. Dale desk lamp, fancy.....each, 7.00

With slate base, wired.

No. 103. Dale desk lamp, fancy.....each, 8.00

With slate base, adjustable height, wired.

No. 1. Kinsman desk lamp, polished brass, nickel plate, old brass, or oxidized copper, without socket or wiring, each, 6.00

The eye shade, which also serves as a reflector, may be moved by a touch to any desired angle. The inner glass cylinder has one clear surface, and one of ground glass to soften the light, and may be turned by a knob on the outside.

The light has forward and back adjustment also.

Wiring with 6 ft. of cord and key socket to match.....extra, 1.00

No. 2A. Kinsman desk lamp, japanned bronze, not wired.....each, 4.50

Has all the features of No. 1 with eye shade, inner glass cylinder, adjustable arm, etc.

Wired with 6 ft. of cord, plug and socket to match.....extra, 1.00



No. 3.



No. 5.

LAMPS, Portable.

Desk and Table Lamps (Continued).

No. 3. Kinsman portable, polished brass, nickel plate, oxidized copper, or old brass ..... each, $8.00
Wired with 6 ft. of cord, attachment plug and Edison key socket to match ..... extra, 1.00

No. 4. Kinsman portable, dark green enamel ..... each, 5.00
Same, except finish, as No. 3.

No. 5. Kinsman portable, polished brass, nickel plate, oxidized copper, or old brass ..... each, 7.00
Wired with 6 ft. of cord, attachment plug, and Edison key socket to match ..... extra, 1.00

No. 6. Kinsman desk lamp, polished brass, oxidized copper, or old brass, each, 12.00
This is a double cylinder desk lamp similar to No. 1 except that it is double width to take two lamps, making a bright illumination for extra long desks.



Style 2M.

Style 2M. White's desk fixture, nickel plated with japanned base joint, without fittings ..... each, 3.00
With attachment plug, 2½ yds. cord, socket, and half shade, each, 4.50
The wrist-joint at end of lamp arm gives free angular adjustment of lamp. May be attached instantly to any width or thickness of desk top.



Style 3M.

Style 3M. White's desk fixture, nickel plated with japanned base joint, without fittings ..... each, 3.25
With attachment plug, 2½ yds. of cord, socket, and cone shade, each, 4.85
Similar to the Style 2M, except with curved arm, to conform more readily to use of cone shade.



Style 1P.

Style 1P. White's desk fixture or portable lamp, polished brass, gold lacquer, nickel, or old brass, without fittings ..... each, 4.50
Ditto with fittings complete. ,, 6.00
Oxidized copper without fittings, each, 4.75
Oxidized copper with fittings, each, 6.25
Made of bronze metal, mounted on slate base with bottom heavily clothed to prevent marring. Insulation provided for cord. Oxidized copper sent unless otherwise ordered.



Style 5P.

Style 5P. White's desk portable, nickel with japanned base joint, without fittings ..... each, 3.00
With attachment plug, 2½ yds. of cord, socket, and half-shade, each, 4.50
Especially suitable for use on typewriter desks, etc., where its extreme adjustability in all directions makes it invaluable.



Style 2P.

Style 6P.



Style 3P.

Style 4P.



No. 1012.



No. 24.



No. 588.



No. 576.

LAMPS, Portable.

Desk and Table Lamps (Continued).

Style 6P. White's desk portable, nickel with japanned base joint, without fittings.....each, $3.25

With attachment plug, 2½ yds. of cord, socket, and cone shade .each, 4.85

Same as the Style 5P except that it has a curved lamp arm, which is also a little longer.

Style 2P. White's portable, nickel with japanned trimmings, without fittings.....each, 3.25

With attachment plug, 2½ yds. of cord, lamp socket, and shade, each, 4.75

Has two frictional joints, which permit of an endless variety of positions. State base, protected.

Style 4P. White's portable, nickel with japanned trimmings, without fittings.....each, 3.50

With attaching plug, 2½ yds. of cord, socket, and cone shade.....each, 5.00

Same as Style 2P except that arm is curved to conform with use of cone shade.

Style 3P. White's floor portable, japanned base, nickel plated rods, without fittings.....each, 7.00

With attaching plug, 3 yds. of cord, metal half shade, nickel socket, and shade holder.....each, 8.75

Especially designed for surgeons, dentists, oculists, etc., for use over operating table.

The lamp may be instantly placed at exactly the right spot with a very great range in all directions.

No. 1012. Faries adjustable portable, polished brass.....each, 2.00

Oxidized copper ..... ,, 2.25

For piano, office desk, table, or any place where a lamp having a wide range of adjustment is required. Height, 18 inches.

No. 24. Faries adjustable table lamp, polished brass .....each, 1.25

Oxidized copper ..... ,, 1.45

May be vertically adjusted from 16 to 22 inches.

No. 576. G. & K. portable, gold and green, Milan green, Laurania green, Tokio bronze, statuary bronze and green, Butler's silver and black, brushed brass and black or mottled copper finishes, no fittings .....each, 1.80

With pull socket to match .... ,, 2.25

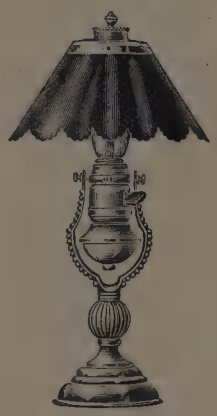
With pull socket to match and shade and holder .....each, 3.00

Ditto complete wired ..... ,, 3.75

Swings same as No. 30 for bracket or table lamp. Height, 9 inches.

No. 588. G. & K. portable, gold and green, Milan green, Lurania green, Tokio bronze, statuary bronze and green, Butler's silver and black, brushed brass and black or mottled copper finishes, no fittings .....each, 7.25

Swings same as No. 30 for bracket or desk lamp. Height, 10 inches.



No. 30.



No. 720.



No. 10. No. 12. No. 14.



No. 16602. No. 25.



No. 26. No. 13. No. 22.

LAMPS, Portable.

Desk and Table Lamps (Continued).

Each.

No. 30. Dale portable, polished brass, old brass, and oxidized copper finishes..... $1.50
Wired complete with key socket, attaching plug, fusible cord, and shade 3.25
Upper part of lamp swivels so that it may be used as a bracket lamp or a stand lamp.

No. 720. G. & K. portable, cast metal, highly finished in French gray or Naxos green with mother-of-pearl shade, complete with cord, socket, and attachment plug, and bulb.. 37.50

No. 10. Dale plain portable, pol. brass or old brass..... 1.45
Wired complete, with key socket, attaching plug, flexible cord, and shade holder..... 2.70
Height, 24 in.

No. 12. Dale extension portable, pol. brass or old brass,..... 5.00
Wired complete, with key socket, attaching plug, flexible cord, and shade holder..... 6.25
Height, 24 in.; extension, 12 in.

No. 14. Dale portable with slate base, pol. brass or old brass..... 3.50
Wired complete, with key socket, attaching plug, flexible cord, and shade holder..... 4.75

No. 16602. Dale portable, with adjustable arm, pol. brass or old brass, 2.50
Wired complete, with key socket, attaching plug, flexible cord, and shade holder..... 4.50
Arm moves up and down, in and out, and from side to side.
Height, 24 in.; extension, 12 in.

No. 25. Dale portable, with two adjustable arms, pol. brass or old brass..... 3.75
Wired complete, with key sockets, attaching plug, flexible cord, and shade holders..... 6.75
Similar to No. 16602 in all its adjustments.
Height, 24 in.; extension, 18 in.

No. 26. Dale portable, pol. brass or old brass, with hood..... 5.75
Wired complete with key socket, attaching plug, and flexible cord, 7.00
Adjustable up and down; arm moves in and out and shade revolves.

No. 13. Dale portable, pol. brass or old brass, with hood..... 3.95
Wired complete with key socket, attaching plug, and flexible cord, 5.20
Has adjustable lamp, a heavy base, and is adjustable in height from 20 to 26 in.

No. 22. Dale portable, pol. brass or old brass, without socket 1.45
Wired with key socket, shade holder, attaching plug, and flexible cord, 2.70



No. 31.



No. 32.



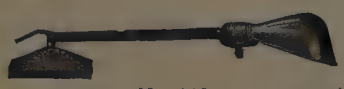
No. 40.



No. 41.



No. 1570.



No. 110.



No. 1.

LAMPS, Portable.

Desk and Table Lamps (Continued).

No. 31. Dale portable, pol. brass or old brass, without socket ..... each, $1.45

Wired complete, with key socket, shade holder, attaching plug, and flexible cord ..... each, 2.70

Can be used as a bracket or portable.

No. 32. Dale portable, pol. brass or old brass, without socket, ... each, 1.95

Wired complete, with key socket, shade holder, attaching plug, and flexible cord ..... each, 3.20

Has an adjustable arm 10 in. long. Standard adjusts from 14 to 24 in. in height. Lamp swings clear around the standard.

No. 40. Dale flexible portable, pol. brass or old brass, without socket ..... each, 2.25

Wired complete, with key socket, attaching plug, flexible cord, and shade holder .... each, 3 50

No. 41. Dale flexible portable base only, pol. brass or old brass ..... each, 1.20

Height, 8 in.

No. 1570. Wheeler portable table lamp, 2-light, solid, without shade or wiring ..... each, 4.50

No. 1571. Ditto, 2-light adjustable ..... each, 5.00
,, 1572. ,, 3 ,, solid ..... ,, 5.00
,, 1573. ,, 3 ,, adjustable ..... ,, 6.00
12-in. green opal shades for above ..... ,, 2.00
10-in. green opal shades for above ..... ,, 1.50

Wiring extra, according to style.

No. 110. D'Olier adjustable portable, square base, dipped brass ..... each, 3.50

Furnished wired complete with 6 ft. cord, attachment plug, key socket, and shade. The following finishes at same price: No. 111, brushed brass; No. 112, pol. brass; No. 113, oxidized brass; No. 114, pol. copper; No. 115, brushed copper; No. 116, oxidized copper; No. 117, nickel; No. 118, gun metal black; No. 119, dull black; No. 120, verde brass.

Has a complete range of adjustment from vertical to horizontal.

No. 1. D'Olier adjustable portable, round base. Furnished wired complete, with 6 ft. cord, attachment plug, key socket, and shade, dipped brass ..... each, 3.08

The following finishes at same price: No. 2, brush brass; No. 3, oxidized copper; No. 4, nickel; No. 5, gun metal black; No. 6, pol. brass; No. 8, oxidized brass; No. 9, pol. copper; No. 10, brush copper; No. 11, dull black; No. 12, verde brass.

Can be instantly changed from a vertical to a horizontal position.



No. 709.



No. 704.



No. 707.



No. 636.



No. 626.



No. 686.

LAMPS, Portable.

Desk and Table Lamps (Continued).

No. 709. G. & K. portable lamp stand only, gas or electric..each, $12.50
Complete with 2-light horizontal cluster, 4-in. cast ring, 2 pull sockets, 6 ft. code cord, detachable attachment plug, and shade without bulbs.....each, 58.88
Height to burner, 14 inches.
Finish, applique black or applique Naxos.

No. 704. G. & K. portable lamp stand only, gas or electric..each 15.00
Complete with 2-light horizontal cluster, 10-in. ring, 2 pull sockets, 6 ft. code cord, detachable attachment plug, and shade, without bulbs.....each, 27.13
Height to burner, 15 inches.
Finish, applique black or applique Naxos.

No. 707. G. & K. portable lamp stand only, gas or electric..each, 15.00
Complete with 3-light horizontal cluster, 3 pull sockets, 6 ft. code cord, detachable attachment plug, and shade, without bulbs, each, 37.50
Height to bottom of shade, 16 inches.
Finish, applique black or applique Naxos.

No. 636. G. & K. portable lamp stand only, gas or electric ..each, 12.50
Complete with 3-light horizontal cluster, 3 pull sockets, 6 ft. code cord, detachable attachment plug, and shade, without bulbs, each, 57.50
Height to bottom of shades, 14½ inches.
Finish, brushed brass, statuary bronze, or Naxos green.

No. 626. G. & K. portable lamp stand only, gas or electric..each, 8.75
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring and shade, without bulbs.. .....each, 41.82
Height to burner, 13 inches.
Finish, statuary bronze and green, or Naxos green.

No. 686. G. & K. portable lamp stand only, gas or electric..each, 7.50
Complete with 2 light horizontal cluster, 10 in. ring, 2 pull sockets, 6 ft. code cord, detachable attachment plug, and shade, without bulbs. .....each, 13.95
Height to burner, 11½ inches.
Finish, brushed brass or Naxos green.

LAMPS, Portable.

Desk and Table Lamps (Continued).



No. 625.



No. 633.

No. 625. G. & K. portable lamp stand only, gas or electric..each, $4.13
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs..... each, 7.20
Height to burner, 11½ inches.
Finish, brushed brass and black, statuary bronze and green or Naxos green.

No. 633. G. & K. portable lamp stand only, gas or electric each, 4.13
Complete with pull socket, code cord, detachable attachment plug, 10-in. shade ring without shade or bulbs..... each, 7.20
Height to burner, 11½ inches.
Finish, brushed brass and black, statuary bronze and green or Naxos green.



No. 591.



No. 640.

No. 591. G. & K. portable lamp stand only, gas or electric.. each, 7.50
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs.....each, 10.58
Height to burner, 11½ inches.
Finish, brushed brass and black, statuary bronze and green or Naxos green.

No. 640. G. & K. portable lamp stand only, gas or electric.. each, 5.00
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs.....each, 8.08
Height to burner, 15 inches.
Finish, brushed brass and black, statuary bronze and green or Naxos green.



No. 586.



No. 593.

No. 586. G. & K. portable lamp stand only, gas or electric.. each, 5.00
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs..... each, 8.08
Finish, brushed brass and black, statuary bronze and green or Naxos green.

No. 593. G. & K. portable lamp stand only, gas or electric.. each, 4.63
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs..... each, 7.70
Height to burner, 11½ inches.
Finish, brushed brass and black, statuary bronze and green or Naxos green.



No. 583.



No. 592.

LAMPS, Portable.

Desk and Table Lamps (Continued).

No. 583. G. & K. portable lamp stand only, gas or electric, each, $4.25
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs..... each, 7.23
Height to burner, 11½ inches.
Finish, brushed brass and black or Naxos green.

No. 592. G. & K. portable lamp stand only, gas or electric.. each, 4.38
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs..... each, 7.35
Height to burner, 12½ inches.
Finish, brushed brass and black, statuary bronze and green or Naxos green.



No. 580.



No. 698.

No. 580. G. & K. portable lamp stand only, gas or electric.. each, 3.75
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs..... each, 6.73
Height to burner, 10 inches.
Finish, brushed brass and black, statuary bronze and green or Naxos green.

No. 698. G. & K. portable lamp stand only, gas or electric...each, 3.75
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs..... each, 6.73
Height to burner, 13 inches.
Finish, brushed brass and black, statuary bronze and green or Naxos green.



No. 569.



No. 570.

No. 569. G. & K. portable lamp stand only, gas or electric.. each, 3.75
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs..... each, 6.73
Height to burner, 12 inches.
Finish, brushed brass and black or Corinthian brass.

No. 570. G. & K. portable lamp stand only, gas or electric...each, 2.50
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs..... each, 5.48
Height to burner, 11 inches.
Finish, brushed brass and black or Corinthian brass.



No. 733.



No. 554.



No. 533.

No. 598.



No. 599.



No. 551.



No. 444.

LAMPS, Portable.

Desk and Table Lamps (Continued).

No. 733. G. & K. portable lamp stand only, gas or electric . . each, $3.13
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs . . . . . each, 6 10
Height to burner, 12 in.
Finish, brushed brass and black, statuary bronze and green or Naxos green.

No. 554. G. & K. portable lamp stand only, gas or electric. . . each, 2.88
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring without shade or bulbs. . . . . each, 5.48
Height to burner, 10½ in.
Finish, brushed brass and black or oxidized copper.

No. 533. G. & K. portable lamp stand only, gas or electric. . . each, 2.50
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs . . . . . each, 5.48
Height to burner, 9½ in.
Finish, brushed brass and black or oxidized copper.

No. 599. G. & K. portable lamp stand only, gas or electric . . each, 2.00
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs . . . . . each, 4.88
Height to burner, 11 in.
Finish, brushed brass and black or statuary bronze and green.

No. 598. G. & K. portable lamp stand only, gas or electric . . . each, 1.25
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs . . . . . each, 4.13
Height to burner, 9 in.
Finish, black base, brushed black and black trimmings.

No. 551. G. & K. portable lamp stand only, gas or electric . . each, 1.58
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs . . . . . each, 4.45
Height to burner, 10 in.
Finish, oxidized copper.

No. 444. G. & K. portable lamp stand only, gas or electric. 1.00
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs, each, 3.88
Height to burner, 9 in.
Finish, black base, gilt trimmings.



No. 716.

No. 516.

No. 520.



No. 515.

No. 604.



No. 530.

No. 659.

LAMPS, Portable.

Desk and Table Lamps (Continued).

No. 516. G. & K. portable lamp stand only, gas (with gas cock) or electric.....each, $ .80
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs.....each, 3.68
Height to burner, 8½ in.
Finish, black base, gilt trimmings.

No. 515. G. & K. portable lamp stand only, gas (no gas cock) or electric.....each, .60
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs.....each, 3.48

No. 716. G. & K. portable lamp stand only, gas or electric..each, 3.13
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs.....each, 6.10
Height to burner, 14½ in.
Finish, Nubian bronze.

No. 520. G. & K. portable lamp stand only, gas or electric..each, 2.63
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 10-in. shade ring, without shade or bulbs.....each, 5.50
Height to burner, 11 in.
Finish, oxidized copper.

No. 530. G. & K. portable lamp stand only, gas or electric, each, 12.50
Complete with pull socket, 6 ft. code cord, detachable attachment plug, 12-in. shade ring, without shade or bulb. Roman or antique green finish....each, 15.88
Turinese or Flemish bronze finish.....each, 18.38
Height to burner, 22 in.

No. 604. G. & K. electrolier, complete with 110-volt lamps, sockets, 6 ft. code cord, and detachable attachment plug.....each, 25.00
Extreme height, 27 in.
Finish, Turinese or Flemish bronze.

No. 659. G. & K. electrolier, complete with 4–110 volt lamps, sockets, 6 ft. code cord, and detachable attachment plug.....each, 75.00
Height, 36 in.
Finish, Turinese bronze or Flemish bronze.



No. 643.



No. 645.



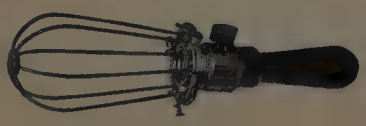
No. 635½.



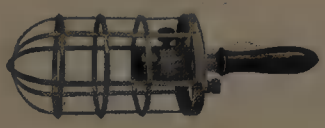
No. 1924.



No. 1928.



No. 4339.



No. 25701.

LAMPS, Portable.

Desk and Table Lamps (Continued).

No. 643. G. & K. electrolier, complete with 110-volt lamp, socket, 6 ft. code cord and detachable attachment plug, each, $15.00
Extreme height, 14½ in.
Finish, Turinese or Flemish bronze.

No. 645. G. & K. portable lamp, with pull socket, 6 ft. code cord, detachable attachment plug, without shade or bulb.....each, 10.00
With special shade as shown, each, 14.00
Height, 13 in.
Finish, Turinese or Flemish bronze.

No. 635½. G. & K. portable lamp, complete with two miniature sockets, 6 ft. code cord, detachable attachment plugs, two tripod shade holders, two brass openwork shades with beaded fringe, linings with or without porcelain candles and bulbs.....each, 23.50
Height to burners, 13 in.
Finish, Turinese or Flemish bronze.

No. 1924. A. R. candle; height, 8¼ in.; finish, polished brass. Complete with nipple to take electric socket, but without socket, shade, or wiring,.....each, 1.90
Same in old brass finish, each, 2.10

No. 1928. A. R. candle; height, 7¼ in.; finish, polished brass. Complete with nipple to take electric socket, but without socket, shade, or wiring.....each, 1.70
Same in old brass finish, each, 1.90

Hand Lamps with Guards

(see also Handles, socket, and Grips, cord).

G. E. Styles.	Std. Pkg.	List.
No. 4339. Portable hand lamp, complete with handle and Edison key socket with heavy wire guard. The guard is held to socket by an ordinary shade holder.....each,	25	$1.25
No. 4561. Portable hand lamp, complete as above except with keyless Edison socket.....each,	25	1.00
No. 25701. Portable hand lamp, complete with handle, Edison key socket, and steel wire guard, held by a ring clamped between the socket and the handle.....each,	25	2.50

LAMPS, Portable.

Hand Lamps with Guards (Continued).



No. 42681.

G. E. Styles.

List Price.

No. 42681. Portable hand lamp, complete with handle, aluminum keyless Edison socket and heavy guard, held firmly at the handle end independent of the socket. Furnished with a convenient hook at the top end. Std. Pkg. 25..each, $2.50



No. 70.

Never-Break Styles.

No. 70. Portable hand lamp, with open end guard with hook and enameled wood handle but without socket. Lamp may be inserted at open end. For 16 c. p. size of lamp, heavy wire.....per doz., 12.00

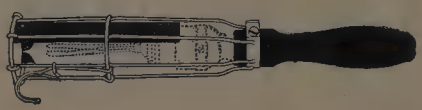


No. 76.

No. 72. Ditto for 32 c. p. lamp, heavy wire, per doz., 16.00

No. 74. Ditto for 16 c. p. lamp, with reflector.....per doz., 20.00

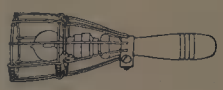
No. 76. Portable hand lamp for 16 c. p. lamp, opens at clamp to remove lamp, ⅜ in. nipple, no socket, per doz., 9.00



No. 80.

No. 78. Ditto for 32 c. p. lamp.... ,, 12.00

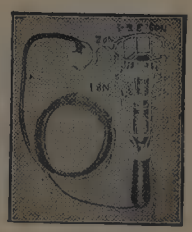
No. 80. Bung hole hand lamp complete with half shade and hook but no socket.....per doz., 18.00



No. 68.

No. 68. Miniature hand lamp for battery use.....per doz., 6.00

No. 69. Ditto with half shade and hook, per doz., 10.00



No. 29.



No. 27.

No. 29. Complete hand lamp, including handle guard, socket, reflector, lamp, 12 ft. of cord, and attaching plug. Reflector focuses light and acts as shade to the eyes, hook allows of hanging in convenient places. All wired ready for use, each, 3.00

No. 27. Miniature hand lamp for battery use. May be instantly attached by means of patented clips to either wires or terminals of battery and is especially adapted for use on automobiles, launches, etc. Complete with handle guard and reflector, lamp cord, and patented clips, wired .....each, 2.50



No. 1.

Crescent Styles.

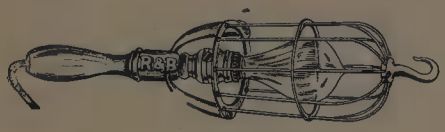
No. 1. Portable hand lamp with handle and hook but without socket, net, each, 1.25

No. 2. Ditto, complete with ⅜ in. socket, net, each, 1.50

Furnished copper or black oxidized finish. Copper finish is regular.



No. H-1669.



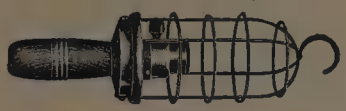
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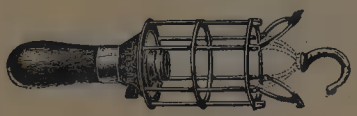
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No. 427.



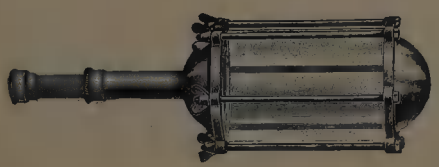
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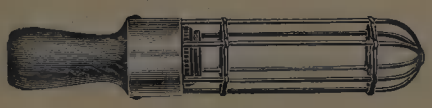
No. 472.



No. 473.



No. 477.



No. 463.



No. 445.

LAMPS, Portable.

Hand Lamps with Guards
(Continued).

Crescent Styles.

List Price.

No. H-1669. Protector portable hand lamp, with handle guard and socket. Guard clamps socket firmly without shade holder and is made of No. 12 wire heavily galvanized after forming. Opens at base, supporting hook at top, lamp held central by fine spring wires, complete.....each, $1.50

R. & B. Style.

No. H-1670. Portable hand lamp of composition metal with steel wire guard, with convenient hook for hanging, complete with socket, each, 1.50

Russel Hand Portables.

No. 422. Brass, watertight hand portable, complete with 6-in. globe and guard..... net, each, 3.25

No. 427. Brass, non-watertight, hand portable, no globe, complete, net, each, 1.75

No. 446. Hand portable, with steel guard and brass head, non-watertight, no globe, complete.... net, each, 1.00

No. 472. Hand portable, brass, with end arranged to open for insertion of lamp..... net, each, 2.00

No. 473. Hand portable, with very heavy steel guard, opens at side to get at lamp..... net, each, 2.00

No. 477. Heavy brass diving lamp with stuffing tube, glass cylinder and gaskets, complete; for use under water..... net, each, 10.00

No. 463. Brass, non-watertight bung hole lamp, portable, complete, net, each, 1.25

No. 445. Waterproof, bung hole hand portable..... net, each, 6.50

LAMPS, Portable (Continued).

Ward Orchestra Lamps.



Ward Orchestra Lamp.

The Ward orchestra lamp may be readily clamped to a music rack, and it has an adjustable opening, which controls the quantity of light. The cylinder rotates so as to throw the light where desired. Without sockets.

No. 10. Single lamp, dark green enamel, each, $2.00
No. 10A. Double lamp, dark green enamel, each, 4.00
No. 11. Single lamp, nickel plated, polished brass, old brass, or oxidized copper.....each, 4.00
No. 11A. Double lamp, nickel plated, polished brass, old brass, or oxidized copper.....each, 6.00

Cushing Orchestra Lamp.



Cushing Orchestra Lamp.

The Cushing orchestra lamp is a double cylinder (for one lamp) having a narrow slit, which throws a strong light directly on the music. By turning the inner cylinder the slit may be adjusted at pleasure. The shade is supported by adjustable brass brackets, highly polished.

No. 1. Cushing orchestra lamp, black japanned finish on outside, bright tin inside, without socket.....each, $2.00

Wheeler Orchestra Shade.



No. 1555.

Shade so designed as to throw a narrow beam of light just where it is wanted. Brackets to fasten to music stand. Diameter, 2¾ inches.

No. 1555. 1-light, without sockets....each, $1.80
2 ,, ,, ,, ... ,, 2.00

Ever Ready Electric Flash Lights.



Leatherette Covered.

Leatherette Covered.

No. 2503. Formerly No. 1. 1½ x 8½..each, $1.25
,, 2504. ,, ,, 1½..... ,, 1.25
Extra battery No. 505..... ,, .30
Extra bulb No.1303, 3½ volt, ,, .35
No. 2505. Formerly No. 2. 1½ x 11.. ,, 1.75
,, 2506. ,, ,, 2½..... ,, 1.75
Extra battery No. 511..... ,, .30
Extra bulb No.1303, 3½ volt, ,, .35
No. 2507. Formerly No. 3. 1½ x 13.. ,, 2.00
,, 2508. ,, ,, 3½..... ,, 2.00
Extra battery No. 515..... ,, .50
Extra bulb No.1365, 5½ volt, ,, .35

Nos. 2504, 2506, and 2508 have glove-fastener contact, giving permanent light if desired.

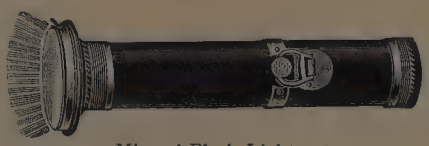


Fibre Covered.

Made of Fibre, Impervious to Water.

No. 2509. Formerly No. 4. 1½ x 8½..each, $1.50
,, 2510. ,, ,, 4½..... ,, 1.50
Extra battery No. 505..... ,, .30
Extra bulb No.1303, 3½ volt, ,, .35
No. 2511. Formerly No. 5. 1½ x 11.. ,, 2.00
,, 2512. ,, ,, 5½..... ,, 2.00
Extra battery No. 511..... ,, .30
Extra bulb No.1303, 3½ volt, ,, .35
No. 2513. Formerly No. 6. 1½ x 13.. ,, 2.50
,, 2514. ,, ,, 6½..... ,, 2.50
Extra battery No. 515..... ,, .50
Extra bulb No.1365, 5½ volt, ,, .35

Nos. 2510, 2512, and 2514 have glove-fastener contact, giving permanent light if desired.



Miners' Flash Light.



Comet.



No. 6501.
Metal Case, Alligator Covered.



No. 6502–6508.
Vulcanized Fibre Case, Waterproof.



No. 6503.
Marbled Metal Case.

LAMPS, Portable.

Ever Ready Electric Flash Lights (Continued).

Miners' Flash Light.

No. 2517.	Formerly No. 14. 1½ x 8½. each,	$2.50
,, 2518.	,, ,, 14½. ..... ,,	2.50
	Extra battery No. 505..... ,,	.30
	Extra bulb No. 1303, 3½ volt, ,,	.35
No. 2519.	Formerly No. 15. 1½ x 11. ,,	3.00
,, 2520.	,, ,, 15½. ..... ,,	3.00
	Extra battery No. 511..... ,,	.30
	Extra bulb No. 1303, 3½ volt, ,,	.35
No. 2521.	Formerly No. 16. 1½ x 13. ,,	3.50
,, 2522.	,, ,, 16½. ..... ,,	3.50
	Extra battery No. 515..... ,,	.50
	Extra bulb No. 1365, 5½ volt, ,,	.35

Nos. 2518, 2520, and 2522 have glove-fastener contact, giving permanent light if desired.

Comet Flash Light (continuous or flash).

No. 2524.	Formerly Comet No. 6. 1½ x 8, each,	$1.00
	Metal case, enameled.	
	Extra battery No. 505.....each,	.30
	Extra bulb No. 1303, 3½ volt, ,,	.35
No. 2526.	Formerly Comet No. 5. 1½ x 8, each,	1.10
	Metal case, cloth covered.	
	Extra battery No. 505.....each,	.30
	Extra bulb No. 1303, 3½ volt, ,,	.35

Ever Ready Vest Pocket Lights.

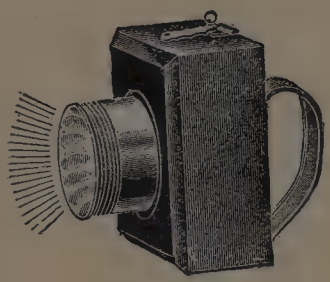
Polished nickel trimmings. Size 1 x 2¾ x 3½. Can be carried in the vest pocket. Renewals can be purchased anywhere.

No. 6508.	Formerly Style A-1 special..each,	$1.00
,, 6501.	,, ,, A..... ,,	.90
,, 6507.	Black metal, alligator..... ,,	.90
,, 6502.	Formerly Style B..... ,,	.80
,, 6504.	,, ,, BB (black metal), each,	.70
No. 6503.	Formerly Style C..... ,,	.65
	Extra battery for above No. 502, sunken cell or No. 503, spring contact.....each,	.30
	Extra bulb No. 1293, 3½ volt, ,,	.35
No. 6506.	Formerly Style CC, black metal, sliding bottom.....each,	.60
	Extra battery No. 503, spring contact only.....each,	.30
	Extra bulb No. 1283, 3½ volt, ,,	.35

Ever Ready Coat Pocket Lights.

Double the size and power of the vest pocket lights. 1½ x 3¾ x 5 inches. Weight, 20 ounces. Has snap-switch, giving permanent light when required.

No. 1901.	Formerly Style CP.....each,	$1.25
	Metal case, leatherette covered.	
No. 1902.	Formerly Style PP .....each,	1.00
	Black metal case.	
	Extra battery for above No. 504, sunken cell or No. 569, spring contact .....each,	.35
	Extra bulb No. 1303S, 3½ volt, ,,	.35



No. 211.



No. 94.



No. 93.

LAMPS, Portable (Continued).

Ever Ready House Lamp.

Fine lens, new corrugated reflector, finely finished nickel trimmings.

This is a first-class lamp for handy use around the house. It can be carried by the handle, upside down or any way, or introduced into odd, out-of-the-way places where a kerosene lamp would be dangerous.

It is entirely safe; nothing so handy and sure for searching in closets, bureaus, going down cellar, into outhouses, etc.

No. 211. Either in ebony or oak, complete, each, $3.00
Extra battery ..... ,, .30

Ever Ready One Piece Electric Gas Lighter.

A never failing and instantaneous igniter for gas-burning appliances.

Requires no previous lighting and draughts cannot extinguish.

Invaluable in the house. A necessity in the office, factory or warehouse, where paper, waste material, and other inflammable substances increase danger from fire.

The nuisance and danger from dripping wax and flame is entirely done away with.

No wires, no chemicals. No danger. Children cannot burn themselves; it ignites nothing but the gas. Cheaper than matches. Lasts for years.

A necessity in kitchen and laundry. Indispensable for work-rooms using soldering stoves and gas heaters.

No. 94. Complete, with battery. Lights about 1,500 times before a new battery is needed $2.00
New battery (No. 930) ..... .25

Ever Ready Range and Gas Lighter.

A great convenience for the kitchen for lighting gas stoves, etc. Lights about 1,500 times before new battery is needed.

No. 93. Popular gas lighter ..... each, $1.50
,, 930. New battery for same ..... ,, .25

Ever Ready Batteries for Flash Lamps.

No. 505. Formerly No. 10. 7 x $1\frac{3}{8}$ ..... $ .30
For use in Flashlights Nos. 2503, 2504, 2509, 2510, 2517, and 2518. Comet lights Nos. 2524 and 2526.

No. 511. Formerly No. 20. $9\frac{5}{8}$ x $1\frac{3}{8}$ ..... .30
For use in Flashlights Nos. 2505, 2506, 2511, 2512, 2519, and 2520.

No. 515. Formerly No. 30. $11\frac{7}{8}$ x $1\frac{3}{8}$ ..... .50
For use in Flashlights Nos. 2507, 2508, 2513, 2514, 2521, and 2522.

No. 501. Formerly No. 000. $4\frac{3}{4}$ x 1 ..... .30
For use in Baby Flashlight No. 2523.

No. 520. Formerly No. 110. $4\frac{3}{4}$ x 1 ..... .25
For use in Baby Flashlight No. 2501.

No. 502. Formerly O-A ..... .30
For use in all "Ever Ready" vest pocket lights except No. 6506 (formerly Style C-C).

No. 504. Formerly O-P (larger size) ..... .35
For use in Ever Ready coat pocket lights No. 1901 (formerly Style C-P) and No. 1902 (formerly Style P-P).



No. 400.



No. 425.

LAMPS, Portable.

Ever Ready Batteries for Flash Lamps (Continued).

No. 503. Formerly O-C ..... $ .30
For use in all Ever Ready vest pocket cases and vest pocket cases of other makes.

No. 569. (Larger size) ..... .35
For use in all Ever Ready coat pocket cases and coat pocket cases of other makes.



No. 426.



No. 444.

LANTERNS, Electric.

Electric Lanterns (see also Reflectors, cargo).

No. 400. Heavy brass, navy form, watertight deck lantern, complete with globe ..... net, each, $4.25

No. 425. Heavy brass, watertight, base outlet deck lantern, complete with globe ..... net, each, 5.00

No. 426. Brass, watertight pole or staff light, complete with globe, net, each, 3.95

No. 444. Brass, 4-in. Fresnal globe, pole or staff light, with base outlet, net, each, 5.50
Colored globes extra on application.

No. 429. Brass lantern, electric or oil, complete ..... net, each, 3.00



No. 429.



Tail Lantern.

LANTERNS, Signal.

Gray's Marker or Tail Lanterns.

Made of heavy stock with extra heavy malleable iron bracket arm. Adjustable arm allows lantern to be revolved and set in any position. These lanterns have no pockets or slide frames as lenses themselves are of colored glass.

B-1. Lantern, 1 red, 1 green, 4-in. lenses on opposite sides ..... per doz., $67.00
Lenses only ..... per doz. sets, 12.00
Frames only ..... per doz., 55.00

B-2. Lantern, 1 red, 2 green, 4-in. lenses on three sides ..... per doz., 74.00
Lenses only ..... per doz. sets, 16.80
Frames only ..... per doz., 57.30

B-3. Lantern, 1 red, 3 green, 4-in. lenses on four sides ..... per doz., 81.00
Lenses only ..... per doz. sets, 21.60
Frames only ..... per doz., 59.40

Prices furnished on application, on lanterns with lenses of larger size up to 6⅜ inches.

LANTERNS, **Signal** (Continued).



Signal Lantern.

Gray's Signal Lantern for Electric Cars.

Arranged to fit into a socket on the dash, upon the corner post, or side of a car. Made with any size, color, or number of lenses. Four-inch ruby semaphore lens is commonly used in this style lantern. It is also made with 4-inch white lens in addition to ruby and with slide to darken white lens.

Complete with one 4-inch ruby lens..... per doz., $66.00
,, ,, ,, 4 ,, green lens..... ,, 64.00

Gray's Lantern Sockets.

Made of malleable iron, the long socket No. 6 to carry lantern and flag at same time.

No. 6. Socket for locomotives..... per doz., $3.00
,, 7. ,, ,, coaches..... ,, 2.50



No. 6. No. 7.

Adlake Automatic Classification Lamp, Non-Sweating Ventilation.

Equipped with two 5-inch white lenses. Signals changed from exterior of lamp by vertical sliding movements. Interlocking device automatically locks one colored disc above lens, while other is in position back of lens displaying desired signal. Equipped for red, green, and white signals, which permit its use as a classification lamp or tender marker. Same may be equipped for two colors only, if desired, viz., white and one other color.

Sliding door.

Standard on many of the largest railroad systems. Used as tail lamp for electric cars.

Heavy steel throughout.

Made also with one lens.



No. 187.

No. 187. Automatic classification lamp, with one lens, to show green and white or red and white..... $7.30
Arranged to show red, green, and white..... 7.50
With two lenses, to show green and white..... 8.00
Additional charge for two green bull's eyes, per lamp, 1.00

Round Body Steel Tail Lamp, Adlake Non-Sweating Ventilation.

This lamp can be fitted with one, two, three, or four lenses, of any size and color desired. We furnish $5\frac{3}{8}$-inch lenses, unless otherwise specified.

Adjustable bracket permits lamp to be easily revolved with one hand.

Sliding door permits ready access to the interior of the lamp for cleaning and removing oil fount. Heavy steel throughout.



No. 83.

No. 83. Tail lamp, with 4-in. ruby and $4\frac{1}{2}$-in. white lens, per doz., $86.50
With $4\frac{1}{8}$-in. ruby and $4\frac{1}{8}$-in. white lens..... 84.50
,, $4\frac{1}{2}$,, ,, ,, $4\frac{1}{2}$,, green ,, ... 88.00
,, $4\frac{1}{8}$,, ,, ,, $4\frac{1}{8}$,, ,, ,, ... 86.00
,, $5\frac{3}{8}$,, ,, ,, $5\frac{3}{8}$,, white ,, ... 90.00
,, 5 ,, ,, ,, 5 ,, ,, ,, ... 90.00
,, $5\frac{3}{8}$,, ,, ,, $5\frac{3}{8}$,, green ,, ... 92.50

Other styles and combinations of lenses on application.



Steel Guard Lantern.



Wire Guard Lantern.



No. 3.



Half Block Letter.

LANTERNS, Signal (Continued).

Adams Steel Guard Lantern.

With outside wick raiser and bracket attachment.

Used as rear-end signal on trolley cars. Best quality Corning ruby globes.

Fitted with burners to take No. 1 or No. 2 wick.

Also made without bracket.

No. 11. Steel guard lantern, fitted with No. 1 ratchet burner, per doz., $26.50

With No. 1 extra ratchet burner ..... ,, 27.00

Wire Guard Lantern.

Fitted with burners for No. 1 or No. 2 wick, and equipped with outside wick raiser, if desired. Used as rear end signals on trolley cars. Best quality Corning ruby glass.

Also made with bracket attachment.

No. 11. Wire guard lantern, with No. 1 ratchet burner, per doz., $25.00

With No. 1 extra ratchet ..... ,, 25.50

Conductors' Lanterns.

Gray's Conductors' Lanterns.

Made in two styles, solid bottom and open bottom, in gold, silver, and nickel plate finish. Half colored and engraved globes to order.

No. 3. Solid bottom ..... each, $7.35

,, 3. Open bottom ..... ,, 7.35

LAUNDRY Irons (see I).

LAVA.

Prices on special lava bushings, etc., on application.

LAVA Tips (see Burners, gas).

LEAD Cables (see C).

LEAD Seals (see S).

LEATHER Bell Cord (see C).

LEATHER Nail Heads (see Washers).

LEATHEROID (see Fibre).

LENSES (see Lanterns).

LETTERS, Sign.

Electric Sign Letters.

The electric sign letters listed have been made to meet the demand of the consumer and contractor for letters that can be assembled to form a complete sign quickly and economically on any kind of a framework or background. They are put together in a thorough and substantial manner and are waterproof throughout. All receptacles used are waterproof, have removable copper shells and are approved by the underwriters for all sign construction. Receptacles are fastened to inside of letter by two brass bolts. All connections are soldered and wires of convenient length for connecting are brought out through porcelain bushings fastened securely to back of letter. Short circuit or ground impossible. Letters are given one coat of red lead, two coats white lead, last and finishing coat, white enamel. Sides are painted red or black as desired. Special enamel used.

Plain Egyptian.

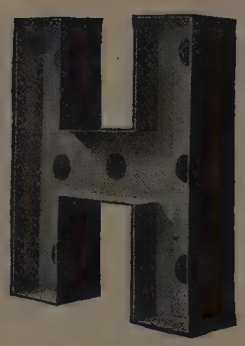
No. S-1670	12	inches high	$3.90
,, S-1671	15	,, ,,	4.90
,, S-1672	20	,, ,,	6.30
,, S-1673	24	,, ,,	7.80
,, S-1674	30	,, ,,	9.50
,, S-1675	36	,, ,,	11.70

Depth of letter 1½ inches.

Half Block.

No. S-1676	12	inches high	$4.00
,, S-1677	15	,, ,,	5.10
,, S-1678	20	,, ,,	6.40
,, S-1679	24	,, ,,	7.90
,, S-1680	30	,, ,,	9.65
,, S-1681	36	,, ,,	11.80

Depth of letter 1½ inches.



Grooved Letter.

LETTERS, Sign.

Electric Sign Letters (Continued).

Grooved Letters.

No. S-1682	12 inches high		$5.20
,, S-1683	15 ,,	,,	5.85
,, S-1684	20 ,,	,,	7.60
,, S-1685	24 ,,	,,	9.00
,, S-1686	30 ,,	,,	11.75
,, S-1687	36 ,,	,,	14.30

Depth of letter 4 inches.
Prices for larger sizes quoted on application.
Average number of lights per letter.

12 inches	7	24 inches	12
15 ,,	8	30 ,,	15
18 ,,	9	36 ,,	18

Grooved letters about one-third less than the above figures.

LETTER Boxes (see B).

LEVELS, Electricians'.

Electricians' Levels.



Nos. 197, 198.

This level is especially designed for use about electrical works, setting up electrical engines, dynamos, etc., or in any place where an iron or steel level is liable to be magnetized. The base is made of bronze, is unmagnetic and has concave groove in the bottom, running through the center full length, adapting it to rest on a shaft or pipe as well as on a flat surface. The No. 197 has a plain vial, and the No. 198 a ground and graduated vial, each set in an adjustable brass tube, having around it an outer tube which may be turned to cover and protect the glass when not in use.

No. 197.

8-inch, with plain vial	each,	$2.50
12 ,, ,, ,, ,,	,,	3.50
16 ,, ,, ,, ,,	,,	4.50
In fancy wooden case	extra,	1.00

No. 198.

8-inch, with ground and graduated vial	each,	$4.50
12 ,, ,, ,, ,, ,, ,,	,,	6.00
16 ,, ,, ,, ,, ,, ,,	,,	8.00
In fancy wooden case	extra	1.00

Both numbers sent without case unless otherwise ordered.

LEVELS, Track.

Buda Wooden Track Level (see Gauges).



Track Level.

Made of white pine with three coats of paint; overcomes tendency to warp and twist, common in maple levels; thoroughly bound with steel.

No. S-1688. Shows proper distance at which to set guard rail	per doz.,	$15.00
No. S-1689. Buda wooden track level, insulated,	,,	15.00
,, S-1690. Extra level glasses	each,	.15

LEWIS Socket Attachment (see A).

LIFTS, Armature.



Barrett Armature Lift.

Barrett Motor Armature Lift, No. S-1691.

This lift is constructed of iron and steel throughout, with either flanged or flat wheels on the truck as desired; arranged for a track of 24-inch gauge.

There is a side adjustment of 6 inches, and the Barrett automatic lowering jack has a cradle top with wood rolls, but a flat or special top can be furnished if desired.

It will carry a load of three tons and is regularly arranged for a pit about four feet deep.

It is 33 inches long, 29 inches wide, 36 high with bar down with a raise of 24 inches, complete ..... each, $75.00



Barrett Wheel and Screw Lift.

LIFTS, Armature (Continued).

Barrett Wheel and Screw Motor Lift, No. S-1692.

Similar in construction to above except that instead of a Barrett jack it has a large hand wheel and screw giving very fine adjustment, with a raise of 26 inches. Suitable for use in positions where the handle of the jack above would be in the way.

Complete ..... each, $75.00



No. 39524.

No. 39523.

LIGHTERS, Cigar.

The Matchless Cigar Lighter.

The heating element is a coil of resistance wire in a porcelain plug covered with a thin sheet of mica.

The current heats the coil to incandescence in a few seconds and the cigar is lighted by holding it against the mica.

When the button is released the current is off.

The heating plug is renewable, so that if it becomes damaged it can be instantly replaced.

Suitable for either alternating or direct current lighting circuits.

No. 39524. Table type, 75 watts, 110-125 volts ..... each, $3.75

No. 39523. Pendant type, 75 watts, 110-125 volts ..... each, 3.50

Extra plugs for cigar lighters, each, .50



No. 1.

The Standard Electric Cigar Lighter.

This cigar lighter is operated by batteries which may be placed in any convenient location out of sight. A spark coil in series with the batteries gives a hot spark at the lighting handle.

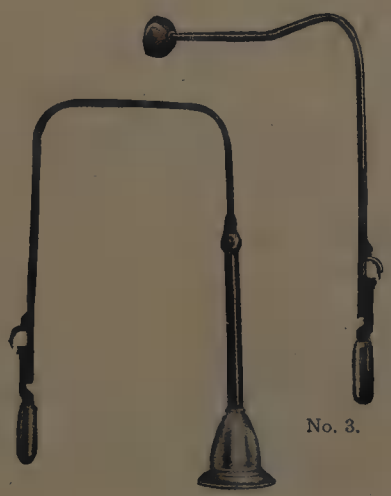
A small quantity of common stove gasoline in the handle is fed up on the wick to the point at which the spark is made in operating.

Made in three forms, pendant, bracket, and stand.

No. 1. Pendant form, complete with 8 yds. of cord, spark coil, and batteries, each, $10.00

No. 2A. Arm to attach to a show case, 5½-in. canopy with lighter only (no batteries) ..... each, 4.00

No. 3. Arm, bracket style with lighter (no batteries) ..... each, 1.75



No. 3.

No. 2A.



Standard Gem Cigar Lighter.



No. 130.



No. 60.



Nos. 468 and 468½.



No. 469.



Exploring Lamp, No. 01A.

LIGHTERS, Cigar (Continued).

The Standard Gem Cigar Lighter.

This electric cigar lighter is especially adapted for counter work in cigar stores, etc. It has a side movement in addition to the raising up movement of the bowl adapting it to pipe lighting. A square frame, 4 x 4 inches, is conveniently arranged for holding advertisements.

No. S-1693. Complete, with batteries..... $12.00

Simplex Cigar Lighter.

Uses current only while being operated, and cannot be left " on " under any circumstances. It is instantaneous in action, being ready to light as soon as the operator presses the lever. It uses arc light carbons only and the maintenance cost is practically nil. It is simple, strong, and will last indefinitely. At present it is made only for direct current circuits and uses, while lighting the cigar, only two amperes. Finish is oxidized copper or nickel plated; the former is sent unless nickel finish is ordered.

No. 130. Cigar lighter for direct current only 80 to 125 volts, as ordered; complete with cord and socket plug, $12.00

LIGHTNING Arresters (see A).

LIGHTS, Automobile.

(State voltage used in ordering.)

Electric Dome Lamps.

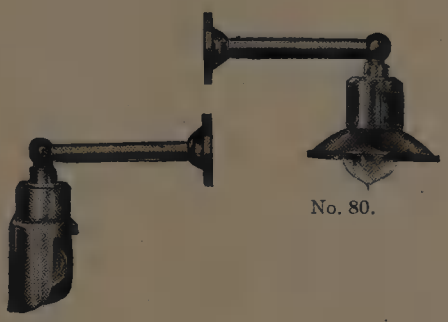
No. 60. Small size, 2¼ in. depth, 3¾ in. diam., base 2¾ in. opening, solid brass.....each, $4.00
No. 60A. Same, silver plated..... ,, 4.50
,, 61. Large size, 2¼ in. depth, 5¼ in. diam. base, 4 in. opening, solid brass.....each, 5.00
No. 61A. Same, silver plated..... ,, 5.50
,, 62. Same as No. 61, with throw switch in base.....each, 6.00
No. 62A. Same, silver plated..... ,, 6.50
,, 468. Automobile ceiling or dome light, 7 in. wide, complete with switch and clear globe.....net, each, 5.50
No. 468½. Ditto, with frosted globe and cut star.....net, each, 6.50
No. 469. Automobile ceiling or dome light, 6 in. wide, plain.....net, each, 3.00

Exploring Lamp.

May be safely used around gasoline tanks. Convenient, of high candle-power, and concentrates the light just where you want it.

Can instantly be attached to your ignition battery and draws but little current.

No. 01. Hand lamp with 12 ft. of cord only, 1½ in. opening, 7 in. over all. Solid brass with mahogany handle. Removable glass in front, silver reflector.....each, $2.50
No. 01A. Same, with plug and receptacle as shown. The receptacle may be set in dash or other convenient place and you can plug in light when wanted.....each, 3.50
No. 03. Same as No. 01 but with switch in handle so that light may be turned off at handle.....each, 3.00
No. 03A. Ditto, with receptacle and plug, each, 4.00



No. 80.

No. 81.

LIGHTS, Automobile (Continued).

Gauge Lamps.

These lamps are used to light the gauges on dash, and for oilers, speedometers, etc.

No. 80. Open style, lights two or more gauges at once and diffuses the light; 2½ in. opening, 2½ in. length, 1⅜ in. diam. base ..... each, $2.50

No. 81. Close style, to concentrate light on one gauge or meter; 2½ in. drop, 3½ in. length, 1⅜ in. diam. of base, each, 2.50

No. 82. Same as No. 81, with reflector set at an angle ..... each, 2.50

LIGHTS, Cargo (see Reflectors).

LIGHTS, Ceiling (see Lights, automobile).



No. 118. No. 119.

Ceiling Lights.

No. 118. 1-light ceiling fixture, 3¼-in. holder, with 7-in. R. I. ball.
Black finish ..... each, $2.70
Special finishes extra, 20%.

No. 119. 1-light ceiling fixture, 3¼-in. holder, with 7-in. R. I. globe.
Black finish ..... each, 5.50
Special finishes extra, 20%.



No. 120. No. 7038.

No. 120. 1-light ceiling fixture, 3¼-in. holder, with 7-in. R. I. ball.
Black finish ..... each, 3.75
Special finishes extra, 20%.

No. 7038. 1-light ceiling fixture, 3¼-in. holder, with 7-in. opalescent twist ball.
Black finish ..... each, 3.50
Special finishes extra, 20%.



No. 7039. No. 152.

No. 7039. 1-light ceiling fixture, 3¼-in. holder, with 7 in. opalescent twist ball.
Black finish ..... each, 3.50
Special finishes extra, 20%.

No. 152. 1-light ceiling fixture, 3¼-in. holder, with 7-in. R. I. ball.
Black finish ..... each, 1.70
Special finishes extra, 20%.



No. 1958.

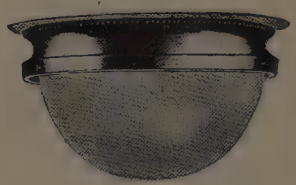
No. 1958. Collar only, 4 x 2⅛ in., for 3¼-in. glass, for use with receptacle.
Polished brass ..... each, .60
Old brass ..... ,, .60
Acid bronze ..... ,, .60



No. 1959.



No. 2139.



No. 1210 (with bowl).



No. 1360. No. C-55.



No. 6323.





No. 6329. No. 9444.



No. 108.



No. 109.

LIGHTS, Ceiling.

Ceiling Lights (Continued).

No. 1959. Collar only, 6⅛ x 2½ in., for 3 ¼-in. glass, with bridge and nipple for use with keyless socket.

Polished brass ..... each, $ .70
Old brass ..... ,, .70
Acid bronze ..... ,, .70

No. 2139. Collar only, 6¼ x 1⅞ in., for 3¼-in. glass, for use with receptacle.

Polished brass ..... each, $ .50
Old brass ..... ,, .50
Acid bronze ..... ,, .50

No. 2051. Collar only, 6⅛ x 2½ in., for 4-in. glass, same shape as No. 1959.

Polished brass ..... each, $ .80
Old brass ..... ,, .80
Acid bronze ..... ,, .80

No. 1210. Collar only, for 10-in. bowl, 2½ x 11 in. Will take as many as 5 keyless receptacles.

Polished brass ..... each, $4.00
Old brass ..... ,, 4.00

No. 1212. Collar only, for 12-in. bowl, 2½ x 13 in. Will take as many as 6 keyless receptacles.

Polished brass ..... each, $4.25
Old brass ..... ,, 4.25

No. C-55. Husk ceiling light, drop 5 in., base 3 in.

Rich gilt ..... each, $1.10
Brush brass ..... ,, 1.10

No. 1360. Cast ceiling light, drop 5 in., base 5 in.

Rich gilt ..... each, $1.75
Brush brass ..... ,, 1.75

No. 6329. Ceiling light, drop 10 in., base 7 in.

Rich gilt ..... each, $1.75
Brush brass ..... ,, 1.75

No. 6323. Ceiling light, 3-light, with husks, drop 9 in., base 9 in.

Rich gilt ..... each, $3.50
Brush brass ..... ,, 3.50

No. 9444. Ceiling light ..... each, $1.10
Three-light. Spread, 5 in. Regular finish.

LIGHTS, Column.

Column Lights.

No. 108. Column light, for 8-in. column.

3 light $10.00
4 ,, ... 12.00
5 ,, ... 14.00
6 ,, ... 16.00

No. 109. Column light, for 8-in. column.

3 light $12.00
4 ,, ... 14.00
5 ,, ... 16.00
6 ,, ... 18.00



No. 110.



No. 71302.



No. 71306.



No. 71310. No. 71308.



No. 71566.



No. 2477L.

LIGHTS, Column.

Column Lights (Continued).

No. 110. Column light, for 8-in. column.

3 light	$8.00
4 ,,	9.00
5 ,,	10.00
6 ,,	12.00

For other sizes of column at proportionate prices.

LIGHTS, Flash (see Lamps, portable).

LIGHTS, Signal (see Lamps, signal).

LIGHTS, Spot (see Lamps, arc).

LIGHTS, Staff (see Lanterns).

LIGHTS, Welsbach (see Burners, Chimneys, etc.).

Boxed Welsbach Lights.

Design No. 71302.

Boxed complete, with No. 302 F. Q. M. opal globe, and No. 197 J brand Welsbach mantle.....each, $1.10

Design No. 71306.

Boxed complete, with No. 306 F. Q. M. cylinder, No. 197 J brand Welsbach mantle, with No. 71 new shape, 10-inch shade and tripod packed separately.

With opal shade	each,	$1.30
With green-plated shade	,,	1.80

Deduct 20 cents when ordered without shade.

Design No. 71310. The Chic Light.

Boxed complete, with No. 310 F. Q. M. cylinder, No. 196 junior J brand Welsbach mantle. The No. 316 shade will be packed separately unless so ordered.

Complete with clear cylinder	each,	$1.35
,, ,, F. Q. M. opal cylinder	,,	1.45
Shade No. 316 only	per doz.,	4.40

Design 71308.

Boxed complete, with No. 308Q etched globe, No. 197 J brand Welsbach mantle.....each, $1.40

Globe only, No. 308Q.....per doz., 6.40

Design No. 71566. The Nippon Light.

Boxed complete, with No. 197 J brand Welsbach mantle, No. 0566 white acid etched air-hole globe.

Complete	each,	$1.40
Globe only, No. 0566	per doz.,	6.40

Design No. 2477 L Class A.

Price complete, with globe No. 2477	each,	$1.90
Globe only, No. 2477	per doz.,	11.00

LIMA Jack Box (see Telephone).

LINEMAN'S Tool and Safety Belt (see B).

LINEMAN'S Vise (see V).

LINEN, Oil (see Clothes, empire).

LINEN Shades (see S).

LINKS, Fuse (see Fuses).

LINKS, Repair.



Acme Repair Link.

Acme Repair Links, No. S=1694.

These links are made from a fine grade of forging steel, drop forged, solid, and without weld; made to equal the strain of a chain of the same size and dimensions.

All links have been subjected to government test, and show a very high tensile strength.

Size.		Size.	
1/4 inch.... per doz.,	$1.00	5/8 inch.... per doz.,	$1.75
5/16 ,, ... ,,	1.10	11/16 ,, ... ,,	2.00
3/8 ,, ... ,,	1.20	3/4 ,, ... ,,	2.40
7/16 ,, ... ,,	1.30	7/8 ,, ... ,,	3.75
1/2 ,, ... ,,	1.40	1 ,, ... ,,	5.00
9/16 ,, ... ,,	1.60		

Will be furnished galvanized at an additional charge.

LINOTAPE (see Cloths, empire).

Linotape.

An electrical insulating tape, whose coating consists of films of empire oxidized linseed oil. Used extensively on coil winding, etc. It has been found far superior to armature friction tapes, etc.

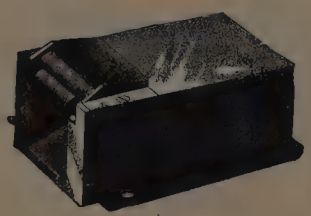
Bias linotape is made under a special process that enables us to manufacture it without rupturing the oil insulating films.

Packed in rolls containing 72 lineal yards and each roll coated with paraffine to exclude moisture.

Width.	No. B. Cut Lengthwise. .010 Thick. Price, per 144 Yards.	No. 10. Cut on the Bias. .010 Thick. Price, per 144 Yards.
3/4 inch	$1.60	$1.85
7/8 ,,	1.85	2.15
1 ,,	2.10	2.45
1 1/4 ,,	2.60	3.05
1 1/2 ,,	3.10	3.65
1 3/4 ,,	3.60	4.25
2 ,,	4.10	4.85
2 1/4 ,,	4.60	5.45
2 1/2 ,,	5.10	6.05
2 3/4 ,,	5.70	6.65
3 ,,	6.20	7.25

LOCK Nuts (see N).

LOCKS, Electric (see Openers and Switch, Yale lock).



Edward's Lock.

Edward's Electric Lock, No. S=1695.

For locking and unlocking gates, doors, etc., at a distance. Two electro-magnets are so combined that by pressing their respective contacts at any distant point or points, the doors will be instantly locked or unlocked.

Especially adapted for use in banks, jewelry establishments, etc., or wherever it is desired to control an entrance.....each, $30.00



P. & T. Lock.

P. & T. Electric Lock No. S=1696.

The P. & T. lock uses any make of cylinders on the market. It is released only during pressure of button and is therefore always locked; no accidental pressure of button will leave it open.

When door closes the only part of lock to operate is the anti-friction latch, increasing the life of the lock over other makes.

It releases either the inside or the outside knob and can also be made to lock either knob; a great protection for jewelry stores against robbery. Can be used equally well on either a right- or left-hand door, each, $10.00



Cutter's Pole Lock.



Fletcher's Pole Lock.



Henderson Boring Machine.

LOCKS, Pole.

Cutter's Pole Lock.

No. S-1697. Has the keyhole at the bottom and not at the top (where the rain and sleet would drive into it). The double catch makes it *non-pickable*, the back fits either a wall or a pole, and the casing makes it *weatherproof*. Just the thing to prevent tampering with hoisting ropes. Complete.....net, each, $ .40
Extra keys..... ,, .10

One key free with every ten locks.

Fletcher's Pole Lock.

No. 962. Complete, with key.....each, $ .35
Extra keys..... ,, .10

LOCK Washers (see W).

LOOP Break, Cutter's (see Insulators, rope).

LOOPED Hood (see H).

LUBRICANT (see Compound, commutator).

LUGS (see Connectors).

LUGS, Fuse (see Fuses, enclosed).

LUGS, Switch (see Terminals).

MACHINE, Blasting (see Dynamos).

MACHINE, Boring (see also Tool, boring).

Henderson's Boring Machines.

Made of bicycle tubing, nickel plated and polished. They have ball-bearing shaft, universal bit holder, are strong and durable, and in every way practical. They extend to 12 feet and telescope to 5 feet.

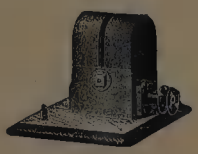
A recent improvement prevents the cones from working loose.

No. S-1698. Complete machine.....each, $25.00

MACHINE Screws (see S).

MAGNETO Bells (see B).

MAGNETOS, Hand (see Igniters, Telephone, and Dynamos).



No. 819.



No. 820.

Hand Power Magneto.

These magneto generators are furnished with either grooved pulley for a ¼-inch belt or with crank.

Especially adapted for laboratory and experimental work in schools, etc.

No. 819. Small power magneto, with pulley.....each, $5.60
,, 820. Hand ,, ,, ,, crank..... ,, 5.40

MAGNETOS, Telephone (see Telephones).

MAGNETOS, Testing.

H.-C. Testing Magneto

(see Telephones for testing sets).

Quartered oak cases, lock corners, reënforced with metal shields, flush covers.

Fitted with leather carrying strap. Equipped with standard generator and ringer mounted on maple sub-base inside of case. A shield covers an aperture through which the gongs may be heard.

A visual signal may also be added if desired at an extra charge.

No. 1–153A.... 10000-ohm testing magneto..... $8.00
,, 2–153A.... 15000 ,, ,, ,, ... 8.50
,, 3–153A.... 25000 ,, ,, ,, ... 9.50
,, 4–153A.... 35000 ,, ,, ,, ... 10.50
,, 5–153A.... 40000 ,, ,, ,, ... 11.50
,, 6–153A.... 50000 ,, ,, ,, ... 12.50
,, 7–153A.... 75000 ,, ,, ,, ... 14.00
,, 8–153A....100000 ,, ,, ,, ... 15.50
For visual signal, add..... 1.00



H.-C. Testing Magneto.

MAGNETOS, Testing (Continued).



Utica Testing Magneto.

The Utica Testing Magnetos, No. S=1699.

A first-class magneto, good for all around use. Complete with strap handle. Bells inside.

10000-ohm testing magneto				each,	$8.00
15000	,,	,,	,,	,,	8.50
20000	,,	,,	,,	,,	9.00
25000	,,	,,	,,	,,	9.50
30000	,,	,,	,,	,,	10.00
35000	,,	,,	,,	,,	10.50
40000	,,	,,	,,	,,	11.00
45000	,,	,,	,,	,,	11.50
50000	,,	,,	,,	,,	12.11
60000	,,	,,	,,	,,	12.50
70000	,,	,,	,,	,,	13.50
75000	,,	,,	,, (4 bar special)	,,	15.00
80000	,,	,,	,,	,,	17.00
100000	,,	,,	,, (5 bar special)	,,	18.00



Tesla No. 30 Magneto.

Tesla Toy Magneto.

Simple to operate. New in design. Finished in red enamel, with nickel trimmings, and mounted on a polished wood stand.

No. 30. Tesla magneto ..... each, $1.00

MAGNETOS, Watchman's (see Clocks, watchman's).

MAGNETS.

We make a specialty of furnishing magnets in quantity for organ builders, manufacturers, etc., and will be pleased to estimate on receipt of full particulars as regards size, resistance, etc.



Magnets.

MAIL Box (see Boxes, letter).

MAIN Cut=Out (see C).

MAN, Dead (see Support).

MANILA Rope (see R).

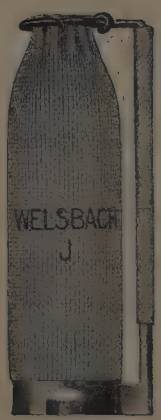
MANSION Bracket (see Fixtures, pole and wall).

MANSON Tape (see Tape, insulating).

MANTLES.



No. 189.



No. 197.

Welsbach Mantles.

The mantle is rigidly suspended over the cap, thus preventing fraying or breaking at the skirt due to vibration, the strain all being taken up at the head of the mantle, which is hardened with a specially prepared chemical solution. The refractory magnesia tube makes impossible the bending of the supporting wire. Both of these features contribute to the maximum durability of the mantle.

No. 189, Yusea Brand.

One of the strongest and brightest mantles made,

per doz., $4.50
per 100, 35.00

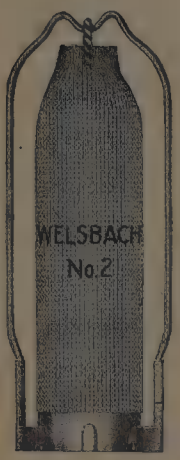
No. 197, J Brand.

Exceptional strength and brilliancy ..... per doz., 3.85
per 100, 30.00

NOTE. — Above mantles will be furnished platinum tied at an advance in prices quoted of $1.20 per dozen or $9.00 per 100.



No. 991.



No. 2C.



No. 3.



No. 222C.



No. 98C.



No. 97C.



No. 301C.



No. 600C.

MANTLES.

Welsbach Mantles
(Continued).

No. 991, Mel-o-lite Brand.
Same quality as J mantle, mounted on cap, with nickel, double-wire support; soft, diffusive light ..... per doz., $3.25
per 100, 25.00

No. 2C, Welsbach.
Mounted on cap with nickel, double-wire support, per doz., 2.55
per 100, 20.00

No. 3, Welsbach.
An excellent mantle for the price. Mounted on cap, with double-wire support, per doz., 2.00
per 100, 15.00

No. 222C, Majestic Brand.
Double-wire cap, double weave, per doz., 1.75
per 100, 13.00

No. 222L, Majestic Brand.
Loop mantle with hook support, per doz., 1.50
per 100, 11.00

No. 98C, S.-H. Brand.
Heavy single weave, double wire cap ..... per doz., 1.75
per 100, 13.00

No. 98L, S.-H. Brand.
Loop mantle with hook support, per doz., 1.50
per 100, 11.00

No. 97C, Aladdin Brand.
Medium single weave, double-wire cap ..... per doz., 1.65
per 100, 12.00

No. 97L, Aladdin Brand.
Loop mantle with hook support, per doz., 1.45
per 100, 10.00

No. 301C, Clover Brand.
Light single weave, double-wire cap ..... per doz., 1.50
per 100, 10.00

No. 301L, Clover Brand.
Loop mantle with hook support, per doz., 1.20
per 100, 8.00

No. 600C, Fire Ball Brand.
Three-cord weave ..... per doz., 1.25
per 100, 8.50

No. 600L, Fire Ball Brand.
Loop mantle with hook support, per doz., 1.15
per 100, 7.80

MARBLE.

We are prepared to furnish marble slabs of any size or complete switchboards on receipt of full specifications.

MARINE Sockets (see S).

MAST-ARMS (see A).

MAST-ARM Rope (see Rope, wire).

MATS.

Wood Mats for Gas Keys (see Keys).

Used as a moulding for Style A nickel keys. Oak only.

No. 22321	2-button mat	each,	$ .24
,, 22322	4 ,, ,,	,,	.40
,, 22323	6 ,, ,,	,,	.50



Key Mat.

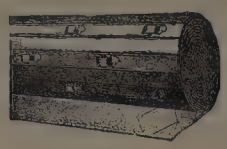


Switch Mat.

Wood Mats for H. & H. Switches.

Will take either push button or rectangular base switches.

		Pine or Oak.	Mahogany or Cherry.
No. 1 P.M.	For 1 switch, each,	$ .30	$ .40
,, 2 P.M.	,, 2 ,, ,,	.40	.50
,, 3 P.M.	,, 3 ,, ,,	.50	.60
,, 4 P.M.	,, 4 ,, ,,	.60	.70
,, 5 P.M.	,, 5 ,, ,,	.70	.80
,, 6 P.M.	,, 6 ,, ,,	.80	.90
,, 7 P.M.	,, 7 ,, ,,	.90	1.00
,, 8 P.M.	,, 8 ,, ,,	1.00	1.10



Electric Matting.

MATTING.

Electric Matting No. S-1699.

A thin wood matting with contact pieces so arranged that it cannot be stepped upon without giving an alarm. May be placed under carpets or rugs and while perfectly invisible will invariably give the alarm. A great protection against burglars.

In rolls, 2, 2½ and 3 ft. wide.....per sq. ft., $ .34

McCREARY Shades (see S).

McINTIRE Connectors (see C).

MEASURING Reels (see R).

MECHANICAL Clips (see Ears).

MEDICAL Battery (see Coil, medical).

MELTING Pot (see Pots, melting, Pots, glue, etc.).

MERCURY.

Mercury for Electrical Purposes, No. S-1700.

Especially useful for electrical contacts, experimental work, laboratory use, etc.....per lb., $1.50

MESCO Battery (see Batteries, dry).

MESSENGER Clamp (see Clamps, suspension).

METALS.

Babbitt Metal.

No. 1.	Babbitt metal	per lb.,	$ .50
,, 2.	,, ,,	,,	.32
,, 3.	,, ,,	,,	.24
,, 4.	,, ,,	,,	.17



No. S-1701.

Frictionless Metal, No. S-1701.

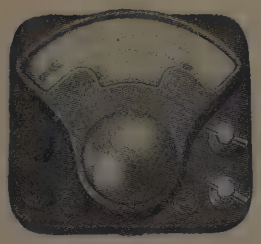
Frictionless metal is made from absolutely new refined material and is the only brand of metal we guarantee, per lb., $ .50

METERS, Watt, see following headings:

Meters, Watt, Portable.
,, ,, Fort Wayne.
,, ,, Thomson recording.
,, ,, Bristol's recording.

METERS, Watt, Portable.

Thomson Inclined Coil Portable Watt Meters. Direct and Alternating Current.



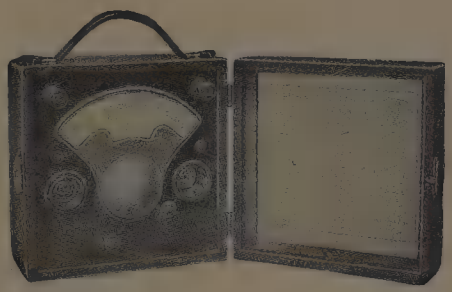
No. 7986.

These instruments while made for alternating current circuits are well adapted for direct current work by taking reversed readings.

Jewel mounted, dead beat, black oxide finish, with hard wood base and carrying case.

No.	Capacity in Watts.	Normal Voltage.	List Price.
7986	150	100–125	$75.00
7981	300	100–125	75.00
30527	500	100–125	75.00
28860	1000	100–125	75.00
7982	1500	100–125	75.00
7983	2500	100–125	75.00
8092	5000	100–125	110.00
8093	10000	100–125	115.00
8094	15000	100–125	120.00
8095	20000	100–125	125.00

Lamp Inspectors' Watt Meter.



No. 7987.

A special form of watt meter for testing incandescent lamps and other devices of small current capacity has been developed and is known as the lamp inspectors' watt meter.

In principle and construction, this and the standard indicating watt meter are identical. The various elements are securely mounted in a polished mahogany carrying case provided with a leather handle.

For convenience in conducting tests on direct current circuits, a special reversing button is provided to reverse the current in the instrument and lamp without disconnecting the lead terminals.

No.	Capacity in Watts.	Normal Voltage.	List Price
7987	150	100–125	$100.00

Weston Standard Portable Watt Meters. Alternating and Direct Current. Model 16.



Weston Standard Portable Nos. 4A, 5A, and 6A Watt Meter for Alternating and Direct Currents.

Direct reading, requiring no adjustment, made in six ranges and especially adapted for use by station managers in testing meters as well as the efficiency of dynamos, motors, transformers, etc.

No.	Watts.	Value of Each Scale Division in Watts.	Max. Cur. Carrying Capacity in Amps.	Max. Voltage.	Price.
1	150	1	2	150	$70.00
1A	75	½	2	75	75.00
	150	1	2	150	
1B	150	1	2	150	85.00
2	1500	10	10	150	70.00
2A	750	5	10	75	75.00
	1500	10	10	150	
3	3750	25	25	150	75.00
3A	1500	10	25	75	80.00
	3000	20	25	150	
4	7500	50	50	150	75.00
4A	3750	25	50	75	80.00
	7500	50	50	150	
5	15000	100	100	150	80.00
5A	7500	50	100	75	85.00
	15000	100	100	150	
6	30000	200	200	150	85.00
6A	15000	100	200	75	90.00
	30000	200	200	150	

METERS, Watt, Portable.

Weston Standard Portable Watt Meters. Alternating and Direct Current. Model 16 (Continued).

Multipliers for Watt Meters.

By means of these multipliers *the capacity in volts only is increased; not, however, the maximum current-carrying capacity.*

For multipliers subdivided to give intermediate ranges, add $5.00 to the price of the highest range for each step.

Multipliers. of	Max. Volt.	For Nos. 1 & 2.	For No. 3.	For Nos. 4, 5, 6.
2	300	$12.00	$15.00	$15.00
4	600	17.50	20.00	20.00
5	750	20.00	22.50	22.50
10	1500	30.00	35.00	35.00
15	2250	35.00	40.00	60.00
20	3000	40.00	60.00	70.00
25	3750	60.00	70.00	80.00
30	4500	65.00	75.00	85.00
40	6000	75.00	90.00	100.00

METERS, Watt, Fort Wayne

(see also Ammeters, Voltmeters, etc.).

Fort Wayne Watt Meters, Type K, Single Phase.

These meters are for alternating circuits only. They are compact, light, and designed for convenience in installation. The cast aluminum case is put on directly from the front, is seated in a felt lined groove, and is fastened by a single screw at the top.

The form letters used signify first, the system for which the meter is designed, as "S" for "single phase"; second, the general form of interior construction, as "A" representing the form in use at present; third, the exterior construction, such as form of case.

The system and voltage are denoted by the class, as, for example: Class 2–110 signifies a two-wire meter for a 110-volt circuit. Lights capacity ratings are based on a 16-candle power, 50-watt lamp.

Transformers are required with Type K watt meters as shown in the table below:

Watt Meters.	Volts.	Amperes.	Transformers.
Single-phase	Under 600	Under 300	None
,,	,, 600	Above 250	Current
,,	600 or over	Under 300	Potential
,,	600 ,, ,,	Above 250	Current and potential
,,	2500 ,, ,,	All sizes	,, ,, ,,

Prices for forms SAD and SAE meters with moulded glass cases are the same as for metal case meters, forms SAA and SAB of the same rating.

Form.	Circuit.	Terminals.	Case.
SAA	Single-phase	Sealed in meter	Metal
SAB	,,	Separately sealed	,,
SAC	,,	Back connected	Round glass switchboard
SAD	,,	Sealed in meter	Moulded glass
SAE	,,	Separately sealed	,, ,,



Form SAA.

Form SAA. Cat. No. 60 Cycles.	Form SAA. Cat. No. 125–140 Cyc.	Form SAB. Cat. No. 60 Cycles.	Form SAB. Cat. No. 125–140 Cycles.	Amp. Cap.	List Price.
			CLASS 2–110.		
80845	80868	83293	83316	5	$25.00
80846	80869	83294	83317	10	28.00
80847	80870	83295	83318	15	32.00
80848	80871	83296	83319	20	36.00
80849	80872	83297	83320	25	40.00
80851	80874	83299	83322	40	49.00
80852	80875	83300	83323	50	53.50
80854	80877	83302	83325	75	64.50
80855	80878	83303	83326	100	74.50
80856	80879	83304	83327	125	80.80
80857	80880	83305	83328	150	87.00
80858	80881	83306	83329	200	98.00
80860	80883	83308	83331	300	110.00
80861	80884	83309	83332	400	115.00
80863	80886	83311	83334	600	124.00
80864	80887	83312	83335	800	134 00

METERS, Watt, Fort Wayne.

Fort Wayne Watt Meters, Type K, Single Phase
(Continued).



Fort Wayne Meter with separate sealed terminals. Form SAB.

Form SAA.		Form SAB.			
Cat. No. 60 Cycles.	Cat. No. 125–140 Cyc.	Cat. No. 60 Cycles.	Cat. No. 125–140 Cycles.	Amp. Cap.	List. Price.
		CLASS 2–220.			
80891	80914	83339	83362	5	$30.25
80892	80915	83340	83363	10	36.00
80893	80916	83341	83364	15	41.00
80894	80917	83342	83365	20	45.60
80895	80918	83343	83366	25	50.00
80897	80920	83345	83368	40	59.00
80898	80921	83346	83369	50	63.50
80900	80923	83348	83371	75	74.50
80901	80924	83349	83372	100	84.50
80902	80925	83350	83373	125	91.25
80903	80926	83351	83374	150	98.00
80904	80927	83352	83375	200	109.00
80906	80929	83354	83377	300	122.50
80907	80930	83355	83378	400	130.00
80909	80932	83357	83380	600	143.00
80910	80933	83358	83381	800	156.00
		CLASS 3–220.			
80936	80950	83384	83398	5	$30.25
80938	80952	83386	83400	10	36.00
80939	80953	83387	83401	15	41.00
80940	80954	83388	83402	20	45.60
80941	80955	83389	83403	25	50.00
80943	80957	83391	83405	40	59.00
80944	80958	83392	83406	50	63.50
80946	80960	83394	83408	75	74.50
80947	80961	83395	83409	100	84.50
80948	80962	83396	83410	125	91.25
80949	80963	83397	83411	150	98.00
92695	92701	92707	92713	200	109.00
92696	92702	92708	92714	300	122.50
92697	92703	92709	92715	400	130.00
92699	92705	92711	92717	600	143.00
92700	92706	92712	92718	800	156.00
		CLASS 2–550.			
80965	80988	83413	83436	5	$48.50
80966	80989	83414	83437	10	54.00
80967	80990	83415	83438	15	59.00
80968	80991	83416	83439	20	63.50
80969	80992	83417	83440	25	68.00
80971	80994	83419	83442	40	76.75
80972	80995	83420	83443	50	81.50
80974	80997	83422	83445	75	93.00
80975	80998	83423	83446	100	103.00
80976	80999	83424	83447	125	109.00
80977	81000	83425	83448	150	116.00
80978	81001	83426	83449	200	127.00
80980	81003	83428	83451	300	140.00
80981	81004	83429	83452	400	148.00
80983	81006	83431	83454	600	161.00
80984	81007	83432	83455	800	174.00

We will furnish 25-cycle meter at the same price as for 60 cycles and 125–140 cycles.

The above prices include current and potential transformers on the capacities which require them.

METERS, Watt, Fort Wayne (Continued).

Fort Wayne Watt Meter, Type K, Multiphase.

Form MAB.



Form MAB.

Cat. No. 25 Cycles.	Cat. No. 40 Cycles.	Cat. No. 60 Cycles.	Cat. No. 125–140 Cycles.	Capacity. Amps.	Capacity. Kw. Non-Ind.	H.P.	List Price.
			For unbalanced 2-phase, 3-wire, 110-volt circuits.				
	,,	,,	3 ,, 3 ,, 110 ,,		,,		
90295	90304	90313	90322	5	1	1	$65.00
90296	90305	90314	90323	10	2	2	70.00
90297	90306	90315	90324	15	3	3	75.00
90298	90307	90316	90325	25	5	5	82.00
90299	90308	90317	90326	50	10	10	92.50
90300	90309	90318	90327	75	15	15	102.50
90301	90310	90319	90328	100	20	20	112.50
90302	90311	90320	90329	150	30	30	132.50
92719	92725	92731	92737	200	40	40	145.75
92720	92726	92732	92738	300	60	60	160.00
92721	92727	92733	92739	400	80	80	170.00
92723	92729	92735	92741	600	120	120	185.00
92724	92730	92736	92742	800	160	160	200.00
			For unbalanced 2-phase, 4-wire, 110-volt circuits.				
90331	90340	90349	90358	5	1	1	$65.00
90332	90341	90350	90359	10	2	2	70.00
90333	90342	90351	90360	15	3	3	75.00
90334	90343	90352	90361	25	5	5	82.00
90335	90344	90353	90362	50	10	10	92.50
90336	90345	90354	90363	75	15	15	102.50
90337	90346	90355	90364	100	20	20	112.50
90338	90347	90356	90365	150	30	30	132.50
92743	92749	92755	92761	200	40	40	145.75
92744	92750	92756	92762	300	60	60	160.00
92745	92751	92757	92763	400	80	80	170.00
92747	92753	92759	92765	600	120	120	185.00
92748	92754	92760	92766	800	160	160	200.00
			For unbalanced 2-phase, 3-wire, 220-volt circuits.				
	,,	,,	3 ,, 3 ,, 220 ,,		,,		
90367	90376	90385	90394	5	2	2	$71.25
90368	90377	90386	90395	10	4	4	77.00
90369	90378	90387	90396	15	6	6	83.00
90370	90379	90388	90397	25	10	10	90.00
90371	90380	90389	90398	50	20	20	103.00
90372	90381	90390	90399	75	30	30	112.50
90373	90382	90391	90400	100	40	40	122.75
90374	90383	90392	90401	150	60	60	142.75
92767	92773	92779	92785	200	80	80	155.75
92768	92774	92780	92786	300	120	120	170.00
92769	92775	92781	92787	400	160	160	180.00
92771	92777	92783	92789	600	240	240	195.00
92772	92778	92784	92790	800	320	320	210.00
			For unbalanced 2-phase, 4-wire, 220-volt circuits.				
90403	90412	90421	90430	5	2	2	$71.25
90404	90413	90422	90431	10	4	4	77.00
90405	90414	90423	90432	15	6	6	83.00
90406	90415	90424	90433	25	10	10	90.00
90407	90416	90425	90434	50	20	20	103.00
90408	90417	90426	90435	75	30	30	112.50
90409	90418	90427	90436	100	40	40	122.75
90410	90419	90428	90437	150	60	60	142.75
92791	92797	92803	92809	200	80	80	155.75
92792	92798	92804	92810	300	120	120	170.00
92793	92799	92805	92811	400	160	160	180.00
92795	92801	92807	92813	600	240	240	195.00
92796	92802	92808	92814	800	320	320	210.00

The above prices include current and potential transformers on the capacities which require them.

METERS, Watt, Fort Wayne.

Fort Wayne Watt Meter, Type K, Multiphase (Continued).

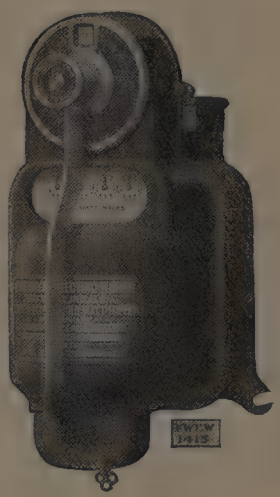
Form MAB.

Cat. No. 25 Cycles.	Cat. No. 40 Cycles.	Cat. No. 60 Cycles.	Cat. No. 125–140 Cycles.	Amps.	Capacity. Kw. Non-Ind.	H. P.	List Price.
			For unbalanced 2-phase, 3-wire, 440-volt circuits.				
			,, ,, 3 ,, 3 440 ,, ,,				
90439	90448	90457	90466	5	4	4	$80.00
90440	90449	90458	90467	10	8	8	87.50
90441	90450	90459	90468	15	12	12	95.00
90442	90451	90460	90469	25	20	20	105.00
90443	90452	90461	90470	50	40	40	117.75
90444	90453	90462	90471	75	60	60	127.75
90445	90454	90463	90472	100	80	80	137.75
90446	90455	90464	90473	150	120	120	157.75
92815	92821	92827	92833	200	160	160	172.50
92816	92822	92828	92834	300	240	240	185.00
92817	92823	92829	92835	400	320	320	194.00
92819	92825	92831	92837	600	480	480	209.00
92820	92826	92832	92838	800	640	640	224.00
			For unbalanced 2-phase, 4-wire, 440-volt circuits.				
90475	90484	90493	90502	5	4	4	$80.00
90476	90485	90494	90503	10	8	8	87.50
90477	90486	90495	90504	15	12	12	95.00
90478	90487	90496	90505	25	20	20	105.00
90479	90488	90497	90506	50	40	40	117.75
90480	90489	90498	90507	75	60	60	127.75
90481	90490	90499	90508	100	80	80	137.75
90482	90491	90500	90509	150	120	120	157.75
92839	92845	92851	92857	200	160	160	172.50
92840	92846	92852	92858	300	240	240	185.00
92841	92847	92853	92859	400	320	320	194.00
92843	92849	92855	92861	600	480	480	209.00
92844	92850	92856	92862	800	640	640	224.00
			For unbalanced 2-phase, 3-wire, 550-volt circuits.				
			,, ,, 3 ,, 3 ,, 550 ,, ,,				
90511	90520	90529	90538	5	5	5	$80.00
90512	90521	90530	90539	10	10	10	87.50
90513	90522	90531	90540	15	15	15	95.00
90514	90523	90532	90541	25	25	25	105.00
90515	90524	90533	90542	50	50	50	117.75
90516	90525	90534	90543	75	75	75	127.75
90517	90526	90535	90544	100	100	100	137.75
90518	90527	90536	90545	150	150	150	157.75
92863	92869	92875	92881	200	200	200	172.50
92864	92870	92876	92882	300	300	300	185.00
92865	92871	92877	92883	400	400	400	194.00
92867	92873	92879	92885	600	600	600	209.00
92868	92874	92880	92886	800	800	800	224.00
			For unbalanced 2-phase, 4-wire, 550-volt circuits.				
90547	90556	90565	90574	5	5	5	$80.00
90548	90557	90566	90575	10	10	10	87.50
90549	90558	50567	90576	15	15	15	95.00
90550	90559	90568	90577	25	25	25	105.00
90551	90560	90569	90578	50	50	50	117.75
90552	90561	90570	90579	75	75	75	127.75
90553	90562	90571	90580	100	100	100	137.75
90554	90563	90572	90581	150	150	150	157.75
92887	92893	92899	92905	200	200	200	172.50
92888	92894	92900	92906	300	300	300	185.00
92889	92895	92901	92907	400	400	400	194.00
92891	92897	92903	92909	600	600	600	209.00
92892	92898	92904	92910	800	800	800	224.00

The above prices include current and potential transformers on the capacities which require them.

METERS, Watt, Fort Wayne (Continued).

Fort Wayne Prepayment Meters, Type K, Single Phase. Self Contained, High Torque.



Prepayment Meter.

For Dimes. Form SDF. Cat. No. 60 Cycles.	Cat. No. 125–140 Cyc.	*For Quarters.* Form SDH. Cat. No. 60 Cycles.	Cat. No. 125–140 Cycles.	Amp. Cap.	*List Price.
		CLASS 2–110.			
90041	90042	90137	90138	5	$45.00
90043	90044	90139	90140	10	48.00
90045	90046	90141	90142	15	52.00
90047	90048	90143	90144	20	56.00
		CLASS 2–220.			
90049	90050	90145	90146	5	$50.25
90051	90052	90147	90148	10	56.00
90053	90054	90149	90150	15	61.00
90055	90056	90151	90152	20	65.60
		CLASS 3–220.			
90057	90058	90153	90154	5	$50.25
90059	90060	90155	90156	10	56.00
90061	90062	90157	90158	15	61.00
90063	90064	90159	90160	20	65.60

For Use with Separate Prepayment Device.

Form SFA. (*Standard Form*). Cat. No. 60 Cycles.	Cat. No. 125–140 Cycles.	Form SFB. (*Separate Seal*). Cat. No. 60 Cycles.	Cat. No. 25–140 Cycles.	Amp. Cap.	List Price.
		CLASS 2–110.			
91856	91857	91880	91881	5	$50.00
91858	91859	91882	91883	10	53.00
91860	91861	91884	91885	15	57.00
91862	91863	91886	91887	20	61.00
		CLASS 2–220.			
91864	91865	91888	91889	5	$55.25
91866	91867	91890	91891	10	61.00
91868	91869	91892	91893	15	66.00
91870	91871	91894	91895	20	70.60
		CLASS 3–220.			
91872	91873	91896	91897	5	$55.25
91874	91875	91898	91899	10	61.00
91876	91877	91900	91901	15	66.00
91878	91879	91902	91903	20	70.60

*List Price includes Separate Prepayment Device. In ordering, customer should always be sure to specify whether the Separate Device is for use with dimes or quarters. See below for list.

Separate Prepayment Devices for Use with Single-phase Prepayment Integrating Watt Meters.

	List Price.
No. 91952. Form 1, separate prepayment device for dimes	
No. 91953. Form 2, separate prepayment device for quarters	

METERS, Watt, Thomson Recording.

Thomson Recording Watt Meters.



Thomson Recording Watt Meter with Cover Removed.

Types C-5, C-6, and C-7, japanned, sheet metal cover. The metal parts of the meter are dipped and lacquered.

Type C-6.

Front connected, metal case, japan finish.

100–120 Volts.

No. 37594	10	lights,	5	amperes	each, $31.00
,, 37595	20	,,	10	,,	,, 33.00
,, 37596	30	,,	15	,,	,, 37.00
,, 37597	50	,,	25	,,	,, 44.00
,, 37598	100	,,	50	,,	,, 58.00
,, 37599	150	,,	75	,,	,, 72.00
,, 37600	200	,,	100	,,	,, 85.00
,, 37601	300	,,	150	,,	,, 110.00
,, 37602	600	,,	300	,,	,, 140.00
,, 37603	1200	,,	600	,,	,, 200.00

(*Continued on next page.*)

METERS, Watt, Thomson Recording.

Thomson Recording Watt Meters
(Continued).

Type C-6.

200–240 Volts, 3-Wire.

No. 37604....	15	lights,	5	amperes.....	each,	$35.00
,, 37605....	30	,,	10	,, ...	,,	40.00
,, 37606....	60	,,	15	,, ...	,,	47.00
,, 37607....	100	,,	25	,, ...	,,	54.00
,, 37608....	200	,,	50	,, ...	,,	71.00
,, 37609....	300	,,	75	,, ...	,,	88.00
,, 37610....	400	,,	100	,, ...	,,	105.00
,, 37611....	600	,,	150	,, ...	,,	135.00
,, 37612....1200		,,	300	,, ...	,,	185.00

200–240 Volts, 2-Wire.

No. 37614....	20	lights,	1¼	H. P.,	5	amps...	each,	$35.00
,, 37615....	40	,,	2	,,	10	,, ...	,,	40.00
,, 37616....	60	,,	3½	,,	15	,, ...	,,	47.00
,, 37617....	100	,,	7	,,	25	,, ...	,,	54.00
,, 37618....	200	,,	15	,,	50	,, ...	,,	68.50
,, 37619....	300	,,	20	,,	75	,, ...	,,	83.00
,, 37620....	400	,,	25	,,	100	,, ...	,,	97.50
,, 37621....	600	,,	40	,,	150	,, ...	,,	125.00
,, 37622....1200		,,	80	,,	300	,, ...	,,	160.00
,, 37623....2400		,,	160	,,	600	,, ...	,,	225.00

Type C-7. For Motor Service.



Thomson Recording Watt Meter.

500–600 Volts.

Front connected, metal cover, Japan finish.

No. 37624....	2½	H. P.,	5	amperes.....	each,	$45.00
,, 37625....	5	,,	10	,, ...	,,	52.00
,, 37626....	7½	,,	15	,, ...	,,	60.00
,, 37627....	15	,,	25	,, ...	,,	70.00
,, 37628....	30	,,	50	,, ...	,,	85.00
,, 37629....	50	,,	75	,, ...	,,	100.00
,, 37630....	60	,,	100	,, ...	,,	115.00
,, 37631 ..100		,,	150	,, ...	,,	145.00
,, 37632....200		,,	300	,, ...	,,	190.00
,, 37633....400		,,	600	,, ...	,,	260.00

NOTE. — Type C-6 or Type C-7 meters when furnished back connected are known as Type C-5 and have same finish as Type C-6.

The following net prices will be added to the net prices of Types C-6 and C-7.

5- 50 amps.	2-wire,	add		$4.50
75-150 ,,	2 ,,	,, ...		4.00
300-600 ,,	2 ,,	,, ...		3.00
5- 50 ,,	3 ,,	,, ...		5.00
75-100 ,,	3 ,,	,, ...		4.00
Meters with glass cover add.....				1.00

Type E (800–1500 amps.).

Type G (2,000–10,000 amps.).

High capacity astatic meter, types E and G — cover has metal frame with glass top, bottom, sides, and front. The metal parts of the cover are finished in dull black; fields are polished copper; the magnetic shield, black enamel with edge of upper plate polished copper.

100–120 Volts.

No. 27835....	1600	lights,	800	amperes.....	each,	$330.00
, 27836....	2400	,,	1200	,, ...	,,	360.00
,, 27837....	3000	,,	1500	,, ...	,,	390.00
,, 27838 ..	4000	,,	2000	,, ...	,,	440.00
,, 27839....	6000	,,	3000	,, ...	,,	470.00
,, 27840....	8000	,,	4000	,, ...	,,	500.00
,, 27841 ..12000		,,	6000	,, ...	,,	600.00
,, 27842....16000		,,	8000	,, ...	,,	850.00
,, 27843....20000		,,	10000	,, ...	,,	1100.00

200–240 Volts, 3-Wire.

No. 31790....	3200	lights,	800	amperes.....	each,	$450.00
,, 31791....	4800	,,	1200	,, ...	,,	500.00
,, 31792....	6000	,,	1500	,, ...	,,	550.00

(*Continued on next page.*)

METERS, Watt, Thomson Recording.

Thomson Recording Watt Meters (Continued).

Type E (800–1500 amps.).
Type G (2,000–10,000 amps.).

200–240 Volts, 2-Wire.

No. 27844..	3200	lights,	200	H. P.,	800	amps..	each,	$360.00
,, 27845..	4800	,,	320	,,	1200	,, ..	,,	390.00
,, 27846..	6000	,,	400	,,	1500	,, ..	,,	420.00
,, 27847..	8000	,,	550	,,	2000	,, ..	,,	470.00
,, 27848..	12000	,,	800	,,	3000	,, ..	,,	500.00
,, 27849..	16000	,,	1100	,,	4000	,, ..	,,	530.00
,, 27850..	24000	,,	1600	,,	6000	,, ..	,,	630.00
,, 27851..	32000	,,	2200	,,	8000	,, ..	,,	850.00
,, 27852..	40000	,,	2800	,,	10000	,, ..	,,	1100.00

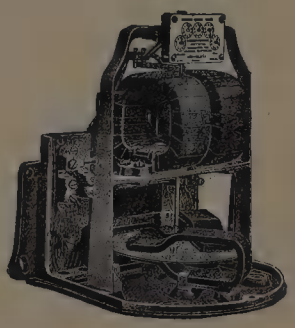
500–600 Volts.

No. 27853....	500	H. P.,	800	amperes.....	each,	$390.00
,, 27854....	800	,,	1200	,, ...	,,	420.00
,, 27855....	1000	,,	1500	,, ...	,,	450.00
,, 27856....	1300	,,	2000	,, ...	,,	500.00
,, 27857....	2000	,,	3000	,, ...	,,	530.00
,, 27858....	2600	,,	4000	,, ...	,,	560.00
,, 27859....	4000	,,	6000	,, ...	,,	660.00
,, 27860....	5200	,,	8000	,, ...	,,	850.00
,, 27861....	6600	,,	10000	,, ...	,,	1100.00

Arc Meters for Station Service.

Sheet metal cover. Dull black finish; interior parts dipped and lacquered.

No. 6978....	1750	volts,	6.6	amperes.....	each, $110.00
,, 6979....	2500	,,	6.6	,, ...	,, 125.00
,, 7150....	3250	,,	6.6	,, ...	,, 135.00
,, 7151....	4000	,,	6.6	,, ...	,, 150.00
,, 7810....	5000	,,	6.6	,, ...	,, 175.00
,, 7811....	6250	,,	6.6	,, ...	,, 200.00
,, 6980....	1750	,,	9.6	,, ...	,, 110.00
,, 6981....	2500	,,	9.6	,, ...	,, 125.00
,, 7152....	3250	,,	9.6	,, ...	,, 135.00
,, 7153....	4000	,,	9.6	,, ...	,, 150.00
,, 7812....	5000	,,	9.6	,, ...	,, 175.00
,, 7813....	6250	,,	9.6	,, ...	,, 200.00



Thomson Watt Meter with Cover Removed.

Street Car Meters.

Sheet metal cover. Dull black finish; base and interior parts of meter, black japan.

500–600 Volts.

No. 5674....	30	H. P.,	50	amperes.....	each, $50.00
,, 7969....	60	,,	100	,, ...	,, 65.00
,, 7970....	120	,,	200	,, ...	,, 85.00
,, 26876....	200	,,	300	,, ...	,, 135.00
,, 29124....	400	,,	600	,, ...	,, 165.00

Type CP Prepayment Meters.

With separate device.

The finish of Types CP, CP-2, IP, IP-2 meters themselves is the same as Type C-6. The case containing the prepayment device is finished in black japan with raised portions finished in aluminum.

100–120 Volts.

No. 39282....	10	lights,	5	amperes.....	each, $56.00
,, 39283....	20	,,	10	,, ...	,, 58.00
,, 39284....	30	,,	15	,, ...	,, 62.00

200–240 Volts, 3-Wire.

No. 39285....	20	lights,	5	amperes.....	each, $60.00
,, 39286....	40	,,	10	,, ...	,, 65.00
,, 39431....	60	,,	15	,, ...	,, 72.00

200–240 Volts, 2-Wire.

No. 39287....	20	lights,	1¼	H. P.,	5	amperes.....	each, $60.00
,, 39288....	40	,,	2	,,	10	,, ...	,, 65.00
,, 39432....	60	,,	3½	,,	15	,, ...	,, 72.00

(*Continued on next page.*)

METERS, Watt, Thomson Recording.

Thomson Recording Watt Meters (Continued).

Type CP-2, Prepayment Meters.

With combined device.

100–120 Volts.

No. 39289	10 lights,	5 amperes	each,	$53.00
,, 39290	20 ,,	10 ,,	,,	55.00
,, 39291	30 ,,	15 ,,	,,	59.00

200–240 Volts, 3-Wire.

No. 39292	20 lights,	5 amperes	each,	$57.00
,, 39293	40 ,,	10 ,,	,,	62.00
,, 39433	60 ,,	15 ,,	,,	69.00

200–240 Volts, 2-Wire.

No. 39294	20 lights,	1¼ H. P.,	5 amperes	each,	$57.00
,, 39295	40 ,,	2 ,,	10 ,,	,,	62.00
,, 39434	60 ,,	3½ ,,	15 ,,	,,	69.00

Thomson High Torque Induction Meters, Single Phase.

Type I.

Front connected. Japanned sheet metal, or moulded glass cover; base, black japan.

100–120 Volts, 40–133 Cycles.

No. 51173	6 lights,	3 amperes	each,	$25.00
,, 51174	10 ,,	5 ,,	,,	25.00
,, 51175	20 ,,	10 ,,	,,	28.00
,, 51176	30 ,,	15 ,,	,,	32.00
,, 51177	50 ,,	25 ,,	,,	40.00
,, 51178	100 ,,	50 ,,	,,	53.50
,, 51179	150 ,,	75 ,,	,,	64.50
,, 51180	200 ,,	100 ,,	,,	74.50
,, 51181	300 ,,	150 ,,	,,	87.00
,, 33584	400 ,,	200 ,,	,,	98.00
,, 33585	600 ,,	300 ,,	,,	110.00



No. 51174.

200–240 Volts, 3-Wire.

No. 33588	12 lights,	3 amperes	each,	$30.25
,, 33589	20 ,,	5 ,,	,,	30.25
,, 33590	40 ,,	10 ,,	,,	36.00
,, 51191	60 ,,	15 ,,	,,	41.00
,, 51192	100 ,,	25 ,,	,,	50.00
,, 51193	200 ,,	50 ,,	,,	63.50
,, 51194	300 ,,	75 ,,	,,	74.50
,, 51195	400 ,,	100 ,,	,,	84.50
,, 51196	600 ,,	150 ,,	,,	98.00

200–240 Volts, 2-Wire.

No. 19042	12 lights,	3 amperes	each,	$30.25
,, 51182	20 ,,	5 ,,	,,	30.25
,, 51183	40 ,,	10 ,,	,,	36.00
,, 51184	60 ,,	15 ,,	,,	41.00
,, 51185	100 ,,	25 ,,	,,	50.00
,, 51186	200 ,,	50 ,,	,,	63.50
,, 51187	300 ,,	75 ,,	,,	74.50
,, 51188	400 ,,	100 ,,	,,	84.50
,, 51189	600 ,,	150 ,,	,,	98.00
,, 33586	800 ,,	200 ,,	,,	109.00
,, 33587	1200 ,,	300 ,,	,,	123.50

Type IP, Prepayment Meters.

With separate device.

100–120 Volts, 40–133 Cycles.

No. 39296	6 lights,	3 amperes	each,	$50.00
,, 39297	10 ,,	5 ,,	,,	50.00
,, 39298	20 ,,	10 ,,	,,	53.00
,, 39299	30 ,,	15 ,,	,,	57.00

200–240 Volts, 3-Wire.

No. 39301	12 lights,	3 amperes	each,	$55.25
,, 39302	20 ,,	5 ,,	,,	55.25
,, 39303	40 ,,	10 ,,	,,	61.00
,, 39304	60 ,,	15 ,,	,,	66.00

200–240 Volts, 2-Wire.

No. 39305	12 lights,	3 amperes	each,	$55.25
,, 39306	20 ,,	5 ,,	,,	55.25
,, 39307	40 ,,	10 ,,	,,	61.00
,, 39308	60 ,,	15 ,,	,,	66.00

METERS, Watt, Thomson Recording.

Thomson High Torque Induction Meters, Single Phase (Continued).

Type IP-2, Prepayment Meters.

With combined device.

100–120 Volts, 40–133 Cycles.

No. 39309	6 lights,	3 amperes	each,	$45.00
,, 39310	10 ,,	5 ,,	,,	45.00
,, 39311	20 ,,	10 ,,	,,	48.00
,, 39312	30 ,,	15 ,,	,,	52.00

200–240 Volts, 3-Wire.

No. 39314	12 lights,	3 amperes	each,	$50.25
,, 39315	20 ,,	5 ,,	,,	50.25
,, 39316	40 ,,	10 ,,	,,	56.00
,, 39317	60 ,,	15 ,,	,,	61.00

200–240 Volts, 2-Wire.

No. 39318	12 lights,	3 amperes	each,	$50.25
,, 39319	20 ,,	5 ,,	,,	50.25
,, 39320	40 ,,	10 ,,	,,	56.00
,, 39321	60 ,,	15 ,,	,,	61.00

Thomson High Torque Induction Meters.
For Switchboard Service, Single-Phase Primary Circuits, 60-133 Cycles.

Type IS-2.

Rectangular pattern. Cast-metal cover and base, finished in dull black. Raised portions of cover are polished copper.

** 1,000–1,150 Volts.*

No. 41429	5 amps.	each,	$100.00
,, 41430	10 ,,	,,	100.00
,, 41431	15 ,,	,,	105.00
,, 41432	25 ,,	,,	115.00
,, 41511	50 ,,	,,	135.00
,, 41512	75 ,,	,,	150.00
,, 41513	100 ,,	,,	165.00
,, 41514	150 ,,	,,	180.00

† 2,000–2,300 Volts.

No. 41515	5 amps.	each,	$130.00
,, 41516	10 ,,	,,	130.00
,, 41517	15 ,,	,,	135.00
,, 41518	20 ,,	,,	140.00
,, 41519	30 ,,	,,	145.00
,, 41520	40 ,,	,,	150.00
,, 41521	60 ,,	,,	160.00
,, 41522	80 ,,	,,	170.00
,, 41523	100 ,,	,,	180.00
,, 41524	150 ,,	,,	190.00

Type IS-3.

Rectangular glass cover with metal frame. Metal parts of cover and interior of meter have dull black finish. The base is finished in black japan.

** 1,000–1,150 Volts.*

No. 41568	5 amps.	each,	$115.00
,, 41569	10 ,,	,,	115.00
,, 41570	15 ,,	,,	120.00
,, 41571	25 ,,	,,	130.00
,, 41572	50 ,,	,,	150.00
,, 41573	75 ,,	,,	165.00
,, 41574	100 ,,	,,	180.00
,, 41575	150 ,,	,,	195.00

† 2,000–2,300 Volts.

No. 41576	5 amps.	each,	$145.00
,, 41577	10 ,,	,,	145.00
,, 41578	15 ,,	,,	150.00
,, 41579	20 ,,	,,	155.00
,, 41580	30 ,,	,,	160.00
,, 41581	40 ,,	,,	165.00
,, 41582	60 ,,	,,	175.00
,, 41583	80 ,,	,,	185.00
,, 41584	100 ,,	,,	195.00
,, 41585	150 ,,	,,	205.00

* Furnished with potential transformers, which are included in list prices.
† Furnished with current and potential transformers which are included in list prices.

Thomson Polyphase Induction Meters.
For Secondary Three-Phase, Two-Phase, and Monocyclic Circuits, 25-133 Cycles.

Type D-3.

Rectangular pattern. Japanned sheet metal cover; base, black japan.

100–120 Volts.

Catalogue Number.				Kw. Capacity Non-inductive Loads.		H. P. Capacity Motors.	
3-Wire 3-Phase, 3-Wire 2-Phase and Monocyclic.	4-Wire 2-Phase 2-Phase.	4-Wire 3-Phase 3-Phase.	Amps.	2- and 3-Phase 3-Phase.	Monocyclic.	2- and 3-Phase and Monocyclic.	List Price.
41314	41341	41368	3	½	¼	½	$65.00
41315	41342	41369	5	1	½	1	65.00
41316	41343	41370	10	2	1	2	70.00
41317	41344	41371	15	3	1½	3	75.00
41318	41345	41372	25	5	3	5	82.00
41319	41346	41373	50	10	5	10	92.50
41320	41347	41374	75	15	8	15	102.50
41321	41348	*	100	20	10	20	112.50
41322	41349	*	150	30	15	30	132.50

* Not self-contained in capacities above 75 amperes.

METERS, Watt, Thomson Recording.

Thomson Polyphase Induction Meters.
For Secondary Three-Phase, Two-Phase, and Monocyclic Circuits, 25-133 Cycles
(Continued).

Type D-3.

Catalogue Number. 3-Wire 3-Phase, 3-Wire 2-Phase and Monocyclic.	4-Wire 2-Phase.	4-Wire 3-Phase.	Amps.	Kw. Capacity Non-inductive Loads. 2- and 3-Phase	Monocyclic.	H. P. Capacity Motors. 2- and 3-Phase and Monocyclic.	List Price.
			200–240 Volts.				
41323	41350	41375	3	1	½	1	$71.25
41324	41351	41376	5	2	1	2	71.25
41325	41352	41377	10	4	2	4	77.00
41326	41353	41378	15	6	3	6	83.00
41327	41354	41379	25	10	5	10	90.00
41328	41355	41380	50	20	10	20	103.00
41329	41356	41381	75	30	15	30	112.50
41330	41357	*	100	40	20	40	122.75
41331	41358	*	150	60	30	60	142.75

Catalogue Number. 3-Wire 3-Phase, 3-Wire 2-Phase and Monocyclic.	4-Wire 2-Phase.	4-Wire 3-Phase.	Amps.	Kw. Capacity Non-inductive Loads. 2- and 3-Phase.	Monocyclic.	H. P. Capacity. Motors. 2- and 3-Phase and Monocyclic.	List Price.
			400–480 Volts.				
44961	44970	44979	3	2	1	2	$80.00
44962	44971	44980	5	4	2	4	80.00
44963	44972	44981	10	8	4	8	87.50
44964	44973	44982	15	12	6	12	95.00
44965	44974	44983	25	20	10	20	105.00
44966	44975	44984	50	40	20	40	117.75
44967	44976	44985	75	60	30	60	127.75
44968	44977	*	100	80	40	80	137.75
44969	44978	*	150	120	60	120	157.75
			500–600 Volts.				
41332	41359	41382	3	3	1½	3	$80.00
41333	41360	41383	5	5	3	5	80.00
41334	41361	41384	10	10	5	10	87.50
41335	41362	41385	15	15	8	15	95.00
41336	41363	41386	25	25	12	25	105.00
41337	41364	41387	50	50	25	50	117.75
41338	41365	41388	75	75	40	75	127.75
41339	41366	*	100	100	50	100	137.75
41340	41367	*	150	150	75	150	157.75

* Not made self-contained in capacities above 75 amperes.

Thomson Polyphase Induction Meters.
For Primary Three-Wire Three-Phase; Three- and Four-Wire Two-Phase, and Monocyclic Circuits.

Type DS-2.

Rectangular pattern. Back connected, cast metal cover, dull black finish, same as single-phase meter Types IS-2 and IS-3.

1,000–1,150 Volts.

Amps.	Kw. Capacity Non-inductive Load. 2- and 3-Phase.	Monocyclic.	H. P. Capacity Motors. 2- and 3-Phase Monocyclic.	25–40 Cycles. Cat. No.	List Price	60–133 Cycles. Cat. No.	List Price.
5	10	5	10	41389	$275.00	41409	$255.00
10	20	10	20	41390	280.00	41410	260.00
15	30	15	30	41391	290.00	41411	270.00
20	40	20	40	41392	300.00	41412	280 00
30	60	30	60	41393	310.00	41413	290.00
40	80	40	80	41394	320.00	41414	300.00
60	120	60	120	41395	330.00	41415	310.00
80	160	80	160	41396	340.00	41416	320.00
100	200	100	200	41397	350.00	41417	330.00
150	300	150	300	41398	365.00	41418	345.00

METERS, Watt, Thomson Recording.

Thomson Polyphase Induction Meters.
For Primary Three-Wire Three-Phase; Three- and Four-Wire Two-Phase, and Monocyclic Circuits (Continued).

Type DS-2.

2,000–2,300 Volts.

Amps.	Kw. Capacity Non-inductive Load. 2- and 3-Phase.	Kw. Capacity Non-inductive Load. Monocyclic.	H. P. Capacity Motors. 2- and 3-Phase Monocyclic.	25-40 Cycles. Cat. No.	25-40 Cycles. List Price.	60-133 Cycles. Cat. No.	60-133 Cycles. List Price.
5	20	10	20	41399	$275.00	41419	$255.00
10	40	20	40	41400	280.00	41420	260.00
15	60	30	60	41401	290.00	41421	270.00
20	80	40	80	41402	300.00	41422	280.00
30	120	60	120	41403	310.00	41423	290.00
40	160	80	160	41404	320.00	41424	300.00
60	240	120	240	41405	330.00	41425	310.00
80	320	160	320	41406	340.00	41426	320.00
100	400	200	400	41407	350.00	41427	330.00
150	600	300	600	41408	365.00	41428	345.00

Type DS-3.

Rectangular pattern. Back connected, glass cover, dull black finish.

1,000–1,150 Volts.

Amps.	Kw. Capacity Non-inductive Load. 2- and 3-Phase.	Kw. Capacity Non-inductive Load. Monocyclic.	H. P. Capacity Motors. 2- and 3-Phase Monocyclic.	25-40 Cycles. Cat. No.*	25-40 Cycles. List Price.	60-133 Cycles. Cat. No.*	60-133 Cycles. List Price.
5	10	5	10	41528	$300.00	41548	$280.00
10	20	10	20	41529	310.00	41549	290.00
15	30	15	30	41530	330.00	41550	310.00
20	40	20	40	41531	340.00	41551	320.00
30	60	30	60	41532	350.00	41552	330.00
40	80	40	80	41533	360.00	41553	340.00
60	120	60	120	41534	370.00	41554	350.00
80	160	80	160	41535	380.00	41555	360.00
100	200	100	200	41536	390.00	41556	370.00
150	300	150	300	41537	405.00	41557	385.00
			2,000–2,300 Volts.				
5	20	10	20	41538	$300.00	41558	$280.00
10	40	20	40	41539	310.00	41559	290.00
15	60	30	60	41540	330.00	41560	310.00
20	80	40	80	41541	340.00	41561	320.00
30	120	60	120	41542	350.00	41562	330.00
40	160	80	160	41543	360.00	41563	340.00
60	240	120	240	41544	370.00	41564	350.00
80	320	160	320	41545	380.00	41565	360.00
100	400	200	400	41546	390.00	41566	370.00
150	600	300	600	41547	405.00	41567	385.00

* Catalogue numbers and list prices include two current and two potential transformers.

METERS, Watt, Bristol's Recording.

Bristol's Standard Recording Watt Meters.

These instruments record continuously in ink on a revolving chart the watts of a circuit, and are especially applicable for recording electrical power of transmission lines and where it is desired to keep account of total power of an electric current.

For alternating currents, both series and potential transformers are used when pressure exceeds 800 volts and current exceeds 200 amperes.

(*Continued on next page.*)

METERS, Watt, Bristol's Recording.

Bristol's Standard Recording Watt Meters
(Continued).

The potential coil requires an auxiliary resistance which is supplied with each instrument and which can be located in series with the coil.

Where there is great fluctuation of current in the circuit a damping device is recommended.

Direct Current Watt Meters, 8-inch Chart.

Cat. No.	Chart No.	Max. Vol.	Max. Cur. Amp.	Range. K. W.	Scale K. W.	Chart, Hours.	List.
3000	310	125	48	5	6	24	$70.00
3001	302	125	48	5	6	12	70.00
3005	318	125	120	12	15	24	80.00
3002	314	125	120	12	15	12	80.00
3003	311	125	145	15	18	24	80.00
3004	312	125	240	25	30	24	90.00
3022	321	125	240	25	30	12	90.00
3009	315	125	300	35	38	12	90.00
3039	324	125	600	70	75	24	100.00
3038	316	125	600	70	75	12	100.00
3057	325	125	1200	125	150	24	100.00
3063	327	125	2400	250	300	24	110.00
3069	328	150	400	50	60	24	90.00
3007	313	150	600	75	90	24	100.00
3020	322	150	600	75	90	12	100.00
3011	307	150	1200	150	180	24	100.00
3010	303	150	1200	150	180	12	100.00
3012	310	250	24	5	6	24	70.00
3013	302	250	24	5	6	12	70.00
3006	318	250	60	12	15	24	70.00
3014	314	250	60	12	15	12	70.00
3016	312	250	120	25	30	24	80.00
3023	321	250	120	25	30	12	80.00
3017	315	250	150	35	38	12	80.00
3040	324	250	300	70	75	24	90.00
3018	316	250	300	70	75	12	90.00
3058	325	250	600	125	150	24	100.00
3064	327	250	1200	250	300	24	100.00
3062	326	250	2400	500	600	24	110.00
3015	319	250	3600	800	900	24	120.00
3041	318	500	30	12	15	24	70.00
3042	314	500	30	12	15	12	70.00
3043	312	500	60	25	30	24	70.00
3044	321	500	60	25	30	12	70.00
3068	328	500	120	50	60	24	80.00
3033	324	500	150	70	75	24	80.00
3045	316	500	150	70	75	12	80.00
3059	325	500	300	125	150	24	90.00
3032	323	500	400	175	200	24	90.00
3065	327	500	600	250	300	24	100.00
3061	326	500	1200	500	600	24	100.00
3024	310	600	10	5	6	24	70.00
3025	302	600	10	5	6	12	70.00
3008	318	600	25	12	15	24	70.00
3026	314	600	25	12	15	12	70.00



Bristol's Watt Meter.

(Continued on next page.)

METERS, Watt, Bristol's Recording.

Bristol's Standard Recording Watt Meters (Continued).

Direct Current Watt Meters, 8-inch Chart.

Cat. No.	Chart No.	Maximum Voltage.	Maximum Current.	Working Range.	Total Scale.	One Revolution of Chart.	List Price.
3027	311	600 volts	30 amps.	0 to 15 k.w.	0 to 18 k.w.	24 hrs.	$70.00
3028	312	600 ,,	50 ,,	0 ,, 25 ,,	0 ,, 30 ,,	24 ,,	70.00
3029	321	600 ,,	50 ,,	0 ,, 25 ,,	0 ,, 30 ,,	12 ,,	70.00
3067	328	600 ,,	100 ,,	0 ,, 50 ,,	0 ,, 60 ,,	24 ,,	80.00
3031	313	600 ,,	150 ,,	0 ,, 75 ,,	0 ,, 90 ,,	24 ,,	80.00
3021	322	600 ,,	150 ,,	0 ,, 75 ,,	0 ,, 90 ,,	12 ,,	80.00
3035	307	600 ,,	300 ,,	0 ,, 150 ,,	0 ,, 180 ,,	24 ,,	90.00
3034	303	600 ,,	300 ,,	0 ,, 150 ,,	0 ,, 180 ,,	12 ,,	90.00
3049	315	625 ,,	60 ,,	0 ,, 35 ,,	0 ,, 38 ,,	12 ,,	70.00
3048	324	625 ,,	120 ,,	0 ,, 70 ,,	0 ,, 75 ,,	24 ,,	80.00
3050	316	625 ,,	120 ,,	0 ,, 70 ,,	0 ,, 75 ,,	12 ,,	80.00
3060	325	625 ,,	240 ,,	0 ,, 125 ,,	0 ,, 150 ,,	24 ,,	90.00
3019	320	625 ,,	2400 ,,	0 ,, 1300 ,,	0 ,, 1500 ,,	24 ,,	110.00
3030	323	650 ,,	300 ,,	0 ,, 175 ,,	0 ,, 200 ,,	24 ,,	90.00
3046	312	750 ,,	40 ,,	0 ,, 25 ,,	0 ,, 30 ,,	24 ,,	70.00
3047	321	750 ,,	40 ,,	0 ,, 25 ,,	0 ,, 30 ,,	12 ,,	70.00
3051	315	750 ,,	50 ,,	0 ,, 35 ,,	0 ,, 38 ,,	12 ,,	70.00
3052	324	750 ,,	100 ,,	0 ,, 70 ,,	0 ,, 75 ,,	24 ,,	80.00
3053	316	750 ,,	100 ,,	0 ,, 70 ,,	0 ,, 75 ,,	12 ,,	80.00
3054	313	750 ,,	120 ,,	0 ,, 75 ,,	0 ,, 90 ,,	24 ,,	80.00
3055	322	750 ,,	120 ,,	0 ,, 75 ,,	0 ,, 90 ,,	12 ,,	80.00
3066	327	750 ,,	400 ,,	0 ,, 250 ,,	0 ,, 300 ,,	24 ,,	90.00
3056	319	750 ,,	1200 ,,	0 ,, 800 ,,	0 ,, 900 ,,	24 ,,	100.00
*3036	304	3000 ,,	10 ,,	0 ,, 25 ,,	0 ,, 30 ,,	24 ,,	85.00
*3037	306	3500 ,,	10 ,,	0 ,, 30 ,,	0 ,, 35 ,,	24 ,,	85.00
†3400	317	625 ,,	600 ,,	0 ,, 350 ,,	0 ,, 375 ,,	12 ,,	115.00

* For arc light circuits.
† Extra large with 12-inch chart.

Alternating Current Watt Meters, 8-inch Chart.

The current coils of these instruments are wound for maximum current of 5 amperes and the potential coils for maximum voltage of 125 volts.

The instruments may be adapted for other ranges of current and voltage by use of series and potential transformers.

All alternating current recording watt meters are furnished with damping device.

No.	Chart No.	Graduations.	Total Scale.	One Rev. of Chart.	Price without Transformers.	Prices of Potential and Series Transformers.	Remarks.
3218	369	20 w.	0 to 1000 w.	7 days	$87.00	On application	Uniform graduations
3200	394	$\frac{1}{20}$ k.w.	0 ,, $2\frac{1}{2}$ k.w.	24 hrs.	87.00	,,	,,
3212	363	1 ,,	0 ,, 20 ,,	15 min.	87.00	,,	,,
3211	362	1 ,,	0 ,, 25 ,,	24 hrs.	87.00	,,	,,
3201	393	1 ,,	0 ,, 50 ,,	24 ,,	87.00	,,	,,
3217	368	1 ,,	0 ,, 50 ,,	15 min.	87.00	,,	,,
3214	365	2 ,,	0 ,, 84 ,,	24 hrs.	87.00	,,	,,
3202	392	2 ,,	0 ,, 100 ,,	24 ,,	87.00	,,	,,
3226	376	5 ,,	0 ,, 150 ,,	24 ,,	87.00	,,	,,
3220	370	5 ,,	0 ,, 150 ,,	12 ,,	87.00	,,	,,
3221	371	5 ,,	0 ,, 150 ,,	1 hr.	87.00	,,	,,
3209	391	5 ,,	0 ,, 200 ,,	24 hrs.	87.00	,,	,,
3215	366	5 ,,	0 ,, 200 ,,	12 ,,	87.00	,,	,,
3213	364	10 ,,	0 ,, 300 ,,	24 ,,	87.00	,,	,,
3224	374	10 ,,	0 ,, 300 ,,	1 hr.	87.00	,,	,,
3222	330	10 ,,	0 ,, 340 ,,	12 hrs.	87.00	,,	,,
3223	373	10 ,,	0 ,, 400 ,,	24 ,,	87.00	,,	,,
3203	398	10 ,,	0 ,, 500 ,,	24 ,,	87.00	,,	,,
3216	367	20 ,,	0 ,, 600 ,,	24 ,,	87.00	,,	,,
3204	395	20 ,,	0 ,, 800 ,,	24 ,,	87.00	,,	,,

METERS, Watt, Bristol's Recording.

Bristol's Standard Recording Watt Meters (Continued).

Alternating Current Watt Meters, 8-inch Chart.

No.	Chart No.	Graduations.	Total Scale.	One Rev. of Chart.	Price without Transformers.	Prices of Potential and Series Transformers.	Remarks.
3210	361	20 k.w.	0 to 1000 k.w.	24 hrs.	$87.00	On application	Uniform graduations
3205	396	50 ,,	0 ,, 1600 ,,	24 ,,	87.00	,,	,,
3206	399	50 ,,	0 ,, 2000 ,,	24 ,,	87.00	,,	,,
3207	397	50 ,,	0 ,, 2500 ,,	24 ,,	87.00	,,	,,
3219	372	100 ,,	0 ,, 3000 ,,	24 ,,			
3208	360	100 ,,	0 ,, 4000 ,,	24 ,,	87.00	On application	Uniform graduations
3225	375	200 ,,	0 ,, 8000 ,,	24 ,,	87.00	,,	,,

Above prices include, with each instrument, padlock and key, one hundred charts, and a bottle of special recording instrument ink.

Price List of Extras and Supplies.

Damping device	extra, net,	$5.00
Aluminum case for 8-in. chart, reducing weight one-half	,,	8.00
,, ,, ,, 12-in. ,, ,, ,, ,,	,,	15.00
Carrying case for electrical instruments, single compartment, for 8-in. chart recorders	extra, net,	6.00
Carrying case for electrical instruments, double compartment, for 8-in. chart recorders	extra, net,	7.00
Special 8-in. chart, graduated to order	,,	15.00
,, 12 ,, ,, ,, ,, ,,	,,	20.00
Additional charts, 8-inch	per 100,	.75
,, ,, 8 ,, (copying ink)	,,	.85
,, ,, 12 ,,	,,	1.50
,, ,, 12 ,, (7 day, 2 colors)	,,	2.00
Recording instrument ink, 1 oz., 25 cents; 4 oz., 60 cents; ½ pt., $1.00; pt., $2.00; qt.,		4.00
Rubber stopper and glass filler		.05

MICA, Cut.

Standard Price List of Cut Electrical Mica.

Size.	Price per Lb.	Size.	Price per Lb.	Size.	Price per Lb.	Size.	Price per Lb.	Size.	Price per Lb.
1 x 3	$1.75	1½ x 3¼	$2.50	1¾ x 10	$12.00	2¼ x 4½	$4.25	2¾ x 3½	$3.60
1 x 4	2.00	1½ x 3½	2.60	1¾ x 11	13.50	2¼ x 5	4.75	2¾ x 3¾	3.75
1 x 4½	2.30	1½ x 3¾	2.70	1¾ x 12	14.00	2¼ x 5½	5.00	2¾ x 4	4.25
1 x 5	3.75	1½ x 4	2.75	2 x 2	2.20	2¼ x 6	5.75	2¾ x 4¼	4.50
1 x 5½	4.00	1½ x 4¼	2.85	2 x 2¼	2.20	2¼ x 6½	6.25	2¾ x 4½	4.75
1 x 6	5.00	1½ x 4½	3.25	2 x 2½	2.30	2¼ x 7	6.75	2¾ x 5	5.75
1 x 6½	5.50	1½ x 5	4.00	2 x 2¾	2.40	2¼ x 7½	7.00	2¾ x 5½	6.25
1 x 7	6.00	1½ x 5½	4.00	2 x 3	2.60	2¼ x 8	7.50	2¾ x 6	6.75
1 x 7½	6.25	1½ x 6	5.25	2 x 3¼	2.70	2¼ x 8½	8.50	2¾ x 6½	7.00
1 x 8	7.00	1½ x 6½	5.75	2 x 3½	2.80	2¼ x 9	9.25	2¾ x 7	8.00
1 x 8½	7.50	1½ x 7	6.25	2 x 3¾	3.00	2¼ x 10	13.00	2¾ x 8	8.50
1 x 9	8.00	1½ x 7½	6.40	2 x 4	3.20	2¼ x 11	13.50	2¾ x 9	9.75
1 x 10	11.00	1½ x 8	7.00	2 x 4¼	3.50	2¼ x 12	14.00	2¾ x 10	13.25
1 x 11	11.50	1½ x 8½	7.50	2 x 4½	4.00	2½ x 2½	2.60	2¾ x 11	13.75
1 x 12	12.00	1½ x 9	8.50	2 x 5	4.50	2½ x 2¾	2.70	2¾ x 12	14.25
1¼ x 3	1.80	1½ x 10	11.50	2 x 5½	4.75	2½ x 3	2.75	3 x 3	4.00
1¼ x 4	2.20	1½ x 11	11.50	2 x 6	5.75	2½ x 3¼	3.00	3 x 3¼	4.00
1¼ x 4½	2.75	1½ x 12	12.00	2 x 6½	6.25	2½ x 3½	3.20	3 x 3½	4.40
1¼ x 5	3.75	1¾ x 3	2.50	2 x 7	6.75	2½ x 3¾	3.50	3 x 3¾	4.75
1¼ x 5½	4.00	1¾ x 3¼	2.60	2 x 7½	7.00	2½ x 4	3.75	3 x 4	5.75
1¼ x 6	5.00	1¾ x 3½	2.75	2 x 8	7.25	2½ x 4¼	4.25	3 x 4¼	6.00
1¼ x 6½	5.50	1¾ x 3¾	2.90	2 x 8½	8.20	2½ x 4½	4.50	3 x 4½	6.50
1¼ x 7	6.00	1¾ x 4	3.00	2 x 9	9.00	2½ x 5	5.00	3 x 5	8.00
1¼ x 7½	6.40	1¾ x 4¼	3.25	2 x 10	13.00	2½ x 5½	5.20	3 x 5½	8.50
1¼ x 8	7.00	1¾ x 4½	3.75	2 x 11	13.50	2½ x 6	6.25	3 x 6	9.00
1¼ x 8½	7.50	1¾ x 5	4.25	2 x 12	14.00	2½ x 6½	6.50	3 x 6½	9.25
1¼ x 9	8.50	1¾ x 5½	4.50	2¼ x 2¼	2.40	2½ x 7	7.00	3 x 7	9.50
1¼ x 10	11.00	1¾ x 6	5.50	2¼ x 2½	2.50	2½ x 7½	7.50	3 x 8	9.75
1¼ x 11	11.50	1¾ x 6½	6.00	2¼ x 2¾	2.60	2½ x 8	8.00	3 x 9	11.00
1¼ x 12	12.00	1¾ x 7	6.50	2¼ x 3	2.70	2½ x 8½	9.00	3 x 10	13.25
1½ x 2	1.80	1¾ x 7½	7.00	2¼ x 3¼	2.85	2½ x 9	9.50	3 x 11	13.75
1½ x 2¼	2.00	1¾ x 8	7.25	2¼ x 3½	3.50	2½ x 10	13.00	3 x 12	14.25
1½ x 2½	2.10	1¾ x 8½	8.00	2¼ x 4	3.60	2½ x 11	13.50	3¼ x 3¼	4.50
1½ x 3	2.40	1¾ x 9	8.75	2¼ x 4¼	4.00	2½ x 12	14.00	3¼ x 3½	4.60

(*Continued on next page.*)

MICA, Cut.

Standard Price List of Cut Electrical Mica (Continued).

Size.	Price per Lb.	Size.	Price per Lb.	Size.	Price per Lb.	Size.	Price per Lb.	Size.	Price per Lb.
3¼ x 3¾	$5.00	3½ x 4½	$7.25	4 x 8	$10.75	5 x 6	$10.50	6 x 6½	$12.75
3¼ x 4	6.00	3½ x 5	8.00	4 x 9	12.50	5 x 6½	10.75	6 x 7	13.00
3¼ x 4¼	6.50	3½ x 5½	8.50	4 x 10	13.50	5 x 7	12.00	6 x 8	14.00
3¼ x 4½	6.75	3½ x 6	9.00	4 x 11	14.00	5 x 8	12.50	6 x 9	14.50
3¼ x 5	8.00	3½ x 6½	9.25	4 x 12	14.50	5 x 9	12.75	6 x 10	15.00
3¼ x 5½	8.50	3½ x 7	9.50	4½ x 4½	8.00	5 x 10	13.75	6 x 11	15.50
3¼ x 6	9.00	3½ x 8	9.75	4½ x 5	8.50	5 x 11	14.00	6 x 12	16.00
3¼ x 6½	9.25	3½ x 9	12.00	4½ x 5½	9.50	5 x 12	15.00	7 x 7	14.00
3¼ x 7	9.50	3½ x 10	13.25	4½ x 6	10.25	5½ x 5½	10.50	7 x 8	14.50
3¼ x 8	9.75	3½ x 11	13.75	4½ x 6½	10.25	5½ x 6	11.00	7 x 9	15.00
3¼ x 9	12.00	3½ x 12	14.25	4½ x 7	10.50	5½ x 6½	11.50	7 x 10	15.50
3¼ x 10	13.25	4 x 4	7.50	4½ x 8	11.00	5½ x 7	12.50	7 x 11	16.00
3¼ x 11	13.75	4 x 4½	7.75	4½ x 9	12.50	5½ x 8	12.75	7 x 12	17.00
3¼ x 12	14.25	4 x 5	8.25	4½ x 10	13.50	5½ x 9	13.00	8 x 8	14.75
3½ x 3½	5.00	4 x 5½	9.00	4½ x 11	14.00	5½ x 10	14.00	8 x 9	15.50
3½ x 3¾	5.50	4 x 6	10.00	4½ x 12	15.00	5½ x 11	14.50	8 x 10	16.00
3½ x 4	6.50	4 x 6½	10.25	5 x 5	10.00	5½ x 12	15.00	All larger, $18.00	
3½ x 4¼	6.75	4 x 7	10.50	5 x 5½	10.00	6 x 6	12.50		

Solid Sheet Mica Washers.

Outside Diam. Inches.	Inside Diameter, Inches.									Prices per Pound.						
	1 8/16	1 4/16	1 2/16	1	14/16	13/16	12/16	10/16	9/16	8/16	7/16	6/16	5/16	4/16	3/16	2/16
3	1.50	1.35	1.25	1.25	1.25	1.25	1.25	1.20	1.20	1.20	1.10	1.10	1.10	1.10	1.10	1.10
2 7/8	1.50	1.35	1.25	1.25	1.25	1.25	1.25	1.20	1.20	1.20	1.10	1.10	1.10	1.10	1.10	1.10
2 3/4	1.50	1.35	1.25	1.25	1.25	1.25	1.25	1.20	1.20	1.20	1.10	1.10	1.10	1.10	1.00	1.00
2 1/2	1.50	1.35	1.25	1.25	1.25	1.20	1.20	1.20	1.20	1.20	1.10	1.10	1.00	1.00	1.00	1.00
2 3/8	1.50	1.35	1.25	1.25	1.25	1.20	1.20	1.20	1.10	1.10	1.10	1.10	1.00	1.00	1.00	1.00
2 1/4	1.50	1.35	1.25	1.25	1.25	1.20	1.20	1.20	1.10	1.10	1.00	1.00	1.00	.90	.90	.90
2 1/8	1.50	1.35	1.25	1.25	1.25	1.20	1.10	1.10	1.10	1.10	1.00	1.00	.90	.90	.90	.90
2	1.50	1.35	1.25	1.25	1.25	1.20	1.10	1.10	1.10	1.10	1.00	1.00	.90	.90	.90	.90
1 15/16	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	.80	.80	.80	.80	.80	.80	.80
1 14/16	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	.80	.80	.80	.80
1 12/16	1.30	1.20	1.20	1.20	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1 11/16	1.30	1.20	1.20	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1 10/16	1.50	1.25	1.25	1.25	1.20	1.20	1.20	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1 9/16	1.50	1.25	1.25	1.25	1.20	1.20	1.20	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1 8/16	1.50	1.25	1.25	1.25	1.20	1.20	1.20	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1 6/16	1.50	1.25	1.25	1.25	1.20	1.20	1.20	1.20	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1 5/16	1.50	1.50	1.25	1.25	1.25	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
1 4/16	1.75	1.50	1.25	1.25	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20	1.20
1 3/16	1.50	1.35	1.35	1.35	1.35	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
1 2/16	1.50	1.35	1.35	1.35	1.35	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
1 1/16	1.50	1.35	1.35	1.35	1.35	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
1	1.50	1.50	1.50	1.35	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
15/16	2.25	2.25	2.25	2.00	1.75	1.50	1.50	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
14/16	2.50	2.50	2.25	2.00	1.50	1.50	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
13/16	2.50	2.25	2.00	1.75	1.25	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
12/16	2.25	2.25	2.00	1.75	1.25	1.25	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
11/16	2.50	2.00	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
10/16	2.50	2.00	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50	1.50
9/16	2.50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
8/16	2.50	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25	2.25
7/16	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50
6/16	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50

MICA, Uncut.

India Mica.

No. A1.	To cut sizes,	4 to 8	inches wide,	8 to 10	inches long	per lb.,	$6.00
„ 1.	„	3 „ 6	„	6 „ 9	„	„	4.50
„ 2.	„	2 „ 4	„	5 „ 8	„	„	2.50
„ 3.	„	2 „ 3½	„	4 „ 6	„	„	2.00
„ 4.	„	1 „ 3½	„	2½ „ 4	„	„	1.30

Amber Mica.

No. A1.	To cut sizes,	4 to 6	inches wide,	8 to 10	inches long	per lb.,	$5.00
„ 1.	„	3 „ 6	„	5 „ 8	„	„	3.50
„ 2.	„	1½ „ 3½	„	4½ „ 7	„	„	2.50
„ 3.	„	1½ „ 3	„	3½ „ 5	„	„	2.00
„ 4.	„	1 „ 2½	„	2½ „ 3½	„	„	1.30

MICA Sockets (see S).

MICANITE.

No. 1. Standard. **India Micanite Plate.**

India Micanite Plate No. 1 is made of best India sheet mica and is suitable for all general purposes, such as commutator rings, armature slots, spools, transformer insulators, etc., etc.

It softens and becomes flexible when heated, and is easily moulded to form.

It is not intended for insulation between the copper bars of commutators and must not be used as such.

Furnished in sheets 18 inches by 36 inches and of thicknesses that are multiples of .005 inch, and also fractional parts of an inch. Special thickness to order.

Price in sheets 18 inches by 36 inches:

.025 inch thick, or over	per lb.,	$2.00
.024 ,, ,, ,, under	,,	2.50

Any other rectangular size:

.025 inch thick, or over	per lb.,	$2.50
.024 ,, ,, ,, under	,,	3.00

No. 2. Special.

This is made of best India sheet mica, and is specially manufactured for commutator segments. The cement will not ooze when heated. Special attention is paid to the thickness of the plate, it being surfaced off by special machinery, and the thickness of each plate inspected, not only along the edges, but through the center of the plate as well by the use of a specially designed micrometer calipering machine.

This plate cannot be moulded.

Furnished in sheets 18 inches by 36 inches and of thicknesses that are multiples of .005 inch, and also fractional parts of an inch. Special thickness to order.

Price in sheets 18 inches by 36 inches:

.025 inch thick, or over	per lb.,	$2.75
.024 ,, ,, ,, under	,,	3.25

Any other rectangular size:

.025 inch thick, or over	per lb.,	3.25
.024 ,, ,, ,, under	,,	3.50

No. 2. Special. **Amber Micanite Plate.**

This plate is made of best Canadian amber sheet mica, and we advocate its use for commutator segments, but not for any other purpose.

It is made under the same process as our No. 2 India plate, but the mica being exceedingly soft, it wears away evenly with the copper.

The cement will not ooze when heated. The plate cannot be used for moulding purposes.

Furnished in sheets 18 inches by 36 inches, and in thicknesses that are multiples of .005 inch, and also fractional parts of an inch. Special thickness to order.

Prices in sheets 18 inches by 36 inches:

.025 inch thick, or over	per lb.,	$3.00
.024 ,, ,, ,, under	,,	3.50

Any other rectangular size:

.025 inch thick, or over	per lb.,	$3.50
.024 ,, ,, ,, under	,,	4.00

Style B. **Flexible Micanite.**

This plate is made of the best India sheet mica and is a very convenient article for insulating armature slots, armature, magnet and commutator cores, transformers, etc., etc.

It contains the very smallest possible amount of bonding material, and the different layers of mica will not slip or slide with pressure.

It is the cheapest possible form of mica insulation. We carry it in stock in sheets 36 inches by 36 inches, and in thicknesses that are multiples of .005 inch. Any special thickness made to order.

Price in sheets 36 inches by 36 inches:

.010 inch thick, or over	per lb.,	$1.50
.009 ,, ,, ,, under	,,	2.00

Weights of Micanite Plates.

Mils. Thickness.	Size.	Pounds.	Mils. Thickness.	Size.	Pounds.
.010	18 x 36	about $\frac{1}{2}$ each.	.050	18 x 36	about $2\frac{3}{4}$ each.
.015	18 x 36	,, $\frac{3}{4}$,,	.055	18 x 36	,, 3 ,,
.020	18 x 36	,, $1\frac{1}{16}$,,	.060	18 x 36	,, $3\frac{1}{8}$,,
.025	18 x 36	,, $1\frac{3}{8}$,,	.062	18 x 36	,, $3\frac{1}{4}$,,
.030	18 x 36	,, $1\frac{3}{4}$,,	.065	18 x 36	,, $3\frac{1}{2}$,,
.032	18 x 36	,, $1\frac{13}{16}$,,	.070	18 x 36	,, $3\frac{3}{4}$,,
.035	18 x 36	,, $1\frac{15}{16}$,,	.093	18 x 36	,, $5\frac{1}{16}$,,
.040	18 x 36	,, $2\frac{1}{8}$,,	.100	18 x 36	,, $5\frac{1}{2}$,,
.045	18 x 36	,, $2\frac{3}{8}$,,	.125	18 x 36	,, $6\frac{1}{2}$,,
.047	18 x 36	,, $2\frac{9}{16}$,,			

MICANITE (Continued).

Weights of Flexible Micanite Plates.

Mils. Thickness.	Size.	Pounds.	Mils. Thickness.	Size.	Pounds.
.005	36 x 36	about ½ each.	.025	36 x 36	about 2½ each.
.010	36 x 36	,, 1 ,,	.030	36 x 36	,, 3 ,,
.015	36 x 36	,, 1½ ,,	.032	36 x 36	,, 3¼ ,,
.020	36 x 36	,, 2 ,,			

Micanite Cloth.

Furnished in rolls 32 inches wide and 16 feet long. It is made with one, two, or three layers of pure India sheet mica pasted on muslin with Japanese paper on reverse side.

Standard thickness is .011 inch (two layers of mica). A roll of this thickness will weigh approximately 3 pounds, 12 ounces.

We also furnish one layer (.008 inch thick) and three layer (.014 inch thick).

Any special thickness made to order.

Price of any thickness ..... per lb., $1.75

Can be furnished in sheets 32 inches square if desired.

Micanite Paper.

This material is similar to micanite cloth, with the exception that it has Japanese paper on both sides of the layer of mica.

Made in rolls 16 feet long by 32 inches wide. The standard thickness is .008 inch (two layers of mica). A roll of this thickness will weigh approximately 2 pounds, 12 ounces.

We also furnish one layer (.005 inch thick) and three layer (.011 inch thick).

Any special thickness made to order.

Price, any thickness ..... per lb., $2.25

Can be furnished in sheets 32 inches square if desired.

Extra Flexible Micanite Cloth and Paper.

These are similar materials to the regular micanite cloth and paper, except that they are softer and more pliable and their construction is somewhat different.

Furnished in rolls 16 feet long by 32 inches wide.

Standard thickness of paper, .007 inch thick, of cloth .012 inch thick. Other thicknesses made to order.

Price of any thickness ..... per lb., $2.25

Can also be furnished in sheets 32 inches square.

Red Rope Paper and Mica Insulator.

Its use is not so universal as the micanite products, but we are prepared to furnish same to order promptly.

Price, any thickness ..... per lb., $1.75

Pressboard and Mica Insulator.

We are prepared to furnish this material upon order specifying thickness desired of component parts.

Price, any thickness ..... per lb., $1.20

Micanite Armature Troughs. For Standard Railway Motors.

		No. per Set.		Price.
G. E.	800 gramme	130	per lb.,	$3.00
,,	800 drum	105	,,	3.00
,,	57		,,	2.75
W. P.	50	64	,,	3.00
,,	30	64	,,	3.00
Edison Nos. 14 and 16			,,	3.00

Red Paper and Mica Troughs.

General Electric Co.'s W. P. 50	each,	$ .16
,, ,, ,, ,, 30	,,	.12

Micanite Insulators for Rheostats.

	Price per Set.
G. E. Co. Type 51, Form D	$7.00
,, ,, ,, 52, ,, D	7.00
,, ,, ,, 83, ,, B	9.00

MICANITE (Continued).

Micanite Commutator Insulation
For General Electric Company's Street Railway Motors

G. E. 800 Drum, Form 4.

	No. per Set.		Price.
Segments, India	105	per lb.,	$3.50
,, amber	105	,,	4.25
Taper ring	2	each,	1.10
,, band ring, narrow..	1	,,	.75
,, ,, ,, wide....	1	,,	.80
Taper and taper band, moulded in one piece...	2	,,	1.85
Sectional ring	2	,,	2.40
Flat ring, flanged	1	,,	1.40
,, ,, plain	1	,,	.70
Sleeve for shell	1	,,	.55

G. E. 800 Drum, Form 6.

Segments, India	105	per lb.,	$3.50
,, amber	105	,,	4.25
Taper ring	2	each,	1.10
Taper band ring, narrow..	1	,,	.75
,, ,, ,, wide....	1	,,	.80
Taper and taper band, moulded in one piece...	2	,,	1.85
Sectional ring	2	,,	2.40
Flat ring, flanged	1	,,	1.40
,, ,, plain	1	,,	.75
Sleeve for shell	1	,,	.55

G. E. 800 Drum, Form 7.

Segments, India	105	per lb.,	$3.50
,, amber	105	,,	4.25
Taper ring	2	each,	1.10
Taper band ring, narrow,	1	,,	.75
,, ,, ,, wide....	1	,,	1.00
Flat ring, plain	1	,,	.75
Sleeve for shell	1	,,	.55

G. E. 800 Ring, Form 3.

Segments, India	130	per lb.,	$3.50
,, amber	130	,,	4.25
Taper ring	2	each,	1.50
Taper band ring, narrow..	1	,,	.95
,, ,, ,, wide....	1	,,	1.05
Flat ring, plain	1	,,	.80
Sleeve for shell	1	,,	.75

G. E. 1000, Form 2.

Segments, India	93	per lb.,	$3.50
,, amber	93	,,	4.25
Taper ring	2	each,	.75
Taper band ring	2	,,	1.00
Sleeve for shell	1	,,	.75
Flat ring	1	,,	.70

G. E. 1000, Form 3.

Segments, India	93	per lb.,	$3.50
,, amber	93	,,	4.25
Taper ring	2	each,	1.00
Taper band ring, narrow..	1	,,	.90
,, ,, ,, wide....	1	,,	1.00
Sleeve for shell	1	,,	.80
Flat ring	1	,,	.70

G. E. 1200, Forms 1 and 2.

Segments, India	105	per lb.,	$3.50
,, amber	105	,,	4.25
Taper ring	2	each,	1.00
Taper band ring, narrow..	1	,,	.90
,, ,, ,, wide....	1	,,	1.00
Flat ring, flanged	1	,,	1.40
Sleeve for shell	1	,,	.65

G. E. 2000.

	No. per Set.		Price.
Segments, India	141	per lb.,	$3.50
,, amber	141	,,	4.25
Taper and band ring, one piece	2	each,	4.50
Flat ring, flanged, connection end	1	,,	4.00
Flat ring, flanged, bearing end	1	,,	2.25
Sleeve for shell	1	,,	1.75
Ring, under bars, pinion end	1	,,	4.50
Ring, over bars, pinion end, sectional	1	,,	4.50

G. E. 51.

Segments, India	111	per lb.,	$3.50
,, amber	111	,,	4.25
Taper ring	2	each,	1.60
Taper band ring, narrow..	1	,,	1.45
,, ,, ,, wide....	1	,,	1.55
Sleeve for shell	1	,,	1.35

G. E. 52-A, Forms 1 and 2.

Segments, India	87	per lb.,	$3.50
,, amber	87	,,	4.25
Taper ring	2	each,	.85
Taper band ring, narrow..	1	,,	.90
,, ,, ,, wide....	1	,,	1.00
Sleeve for shell	1	,,	.65
Flat ring	1	,,	.80

G. E. 53-A.

Segments, India	111	per lb.,	$3.50
,, amber	111	,,	4.25
Taper ring	2	each,	1.25
Taper band ring, narrow..	1	,,	1.25
,, ,, ,, wide....	1	,,	1.50
Sleeve for shell	1	,,	1.20
Flat ring	1	,,	.75

G. E. 54-A.

Segments, India		per lb.,	$3.50
,, amber		,,	4.25
Taper ring		each,	.80
Taper band, narrow		,,	.65
,, ,, wide		,,	.85
Sleeve for shell		,,	.90
Flat ring		,,	.50

G. E. 55-A.

Segments, India		per lb.,	$3.50
,, amber		,,	4.25
Taper ring	2	each,	2.35
Taper band, narrow	1	,,	2.55
,, ,, wide	1	,,	2.65
Sleeve for shell	1	,,	1.60

G. E. 57-A.

Segments, India	99	per lb.,	$3.50
,, amber	99	,,	4.25
Taper ring	2	each,	1.15
Taper band ring	1	,,	1.40
Flat ring	1	,,	.75
Sleeve for shell	1	,,	1.20

MICANITE.

Micanite Commutator Insulation
For General Electric Company's Street Railway Motors (Continued).

G. E. 58-A.

	No. per Set.		Price.
Segments, India	99	per lb.,	$3.50
,, amber	99	,,	4.25
Taper ring	2	each,	1.25
Taper band ring	1	,,	1.25
Flat ring	1	,,	1.15
Sleeve for shell	1	,,	.75

G. E. 62.

Segments, India		per lb.,	$3.50
,, amber		,,	4.25
Taper ring	2	each,	1.00
Taper band, narrow	1	,,	1.00
,, ,, wide	1	,,	1.10
Sleeve	1	,,	.75

G. E. 67-A.

Segments, India	111	per lb.,	$3.50
,, amber	111	,,	4.25
Taper ring	2	each,	1.05
Taper band ring. narrow	1	,,	1.10
,, ,, ,, wide	1	,,	1.20
Flat ring	1	,,	.50
Sleeve for shell	1	,,	.60

G. E. 70.

Prices on application.

G. E. 74.

Prices on application.

W. P. 50 Thomson-Houston, Form 1.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Outer taper ring	2	each,	.75
Inner ,, ,,	2	,,	.65
Sleeve for shell	1	,,	.80

W. P. 50 Thomson-Houston, Form 4.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Taper ring	2	each,	1.00
Taper band ring, narrow	1	,,	.75
,, ,, ,, wide	1	,,	.80
Sleeve for shell	1	,,	.85

W. P. 50 Thomson-Houston, Form 6.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Taper ring	2	each,	1.00
Taper band ring, narrow	1	,,	.75
,, ,, ,, wide	1	,,	.80
Sleeve for shell	1	,,	.85

W. P. 50 Thomson-Houston, Form 7.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Outer taper ring	2	each,	1.25
Inner ,, ,,	2	,,	.65
Sleeve for shell	1	,,	.80

W. P. 30 Thomson-Houston, Form 1.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Outer taper ring	2	each,	.75
Inner ,, ,,	2	,,	.65
Sleeve for shell	1	,,	.80

W. P. 30 Thomson-Houston, Form 4.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Taper ring	2	each,	1.00
Taper band ring, narrow	1	,,	.75
,, ,, ,, wide	1	,,	.80
Sleeve for shell	1	,,	.85

W. P. 30 Thomson-Houston, Form 6.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Taper ring	2	each,	1.00
Taper band ring, narrow	1	,,	.75
,, ,, ,, wide	1	,,	.80
Sleeve for shell	1	,,	.85

W. P. 30 Thomson-Houston, Form 7.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Outer taper ring	2	each,	1.25
Inner ,, ,,	2	,,	.65
Sleeve for shell	1	,,	.80

F. 30 Thomson-Houston, Old Style.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Outer taper ring	2	each,	.75
Inner ,, ,,	2	,,	.65
Sleeve for shell	1	,,	.80

F. 30 Thomson-Houston, Form 4.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Taper ring	2	each,	1.00
Taper band ring, narrow	1	,,	.75
,, ,, ,, wide	1	,,	.80
Sleeve for shell	1	,,	.85

F. 20 Thomson-Houston, Old Style.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Outer taper ring	2	each,	.75
Inner ,, ,,	2	,,	.65
Sleeve for shell	1	,,	.80

F. 20 Thomson-Houston, Form 4.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Taper ring	2	each,	1.00
Taper band ring, narrow	1	,,	.75
,, ,, ,, wide	1	,,	.80
Sleeve for shell	1	,,	.85

S. R. G. Thomson-Houston, Old Style.

Segments, India	64	per lb.,	$3.50
,, amber	64	,,	4.25
Outer taper ring	2	each,	.75
Inner ,, ,,	2	,,	.65
Sleeve for shell	1	,,	.80

MICANITE.

Micanite Commutator Insulation

For General Electric Company's Street Railway Motors (Continued).

No. 6 Edison, Old Style.

	No. per Set.		Price.
Segments, India	56	per lb.,	$3.50
,, amber	56	,,	4.25
Taper ring, narrow	1	each,	.80
,, ,, wide	1	,,	.90
Sleeve for shell	1	,,	1.00

No. 8 Edison.

Segments, India	56	per lb.,	$3.50
,, amber	56	,,	4.25
Taper ring	2	each,	.80
Band ring, narrow	1	,,	.90
,, ,, wide	1	,,	1.00
Sleeve for shell	1	,,	1.00

No. 12 Edison.

Segments, India	140	per lb.,	$3.50
,, amber	140	,,	4.25
Taper ring	2	each,	.90
Band ring, narrow	1	,,	1.00
,, ,, wide	1	,,	1.10
Sleeve for shell	1	,,	1.00

No. 14 Edison.

Segments, India	120	per lb.,	$3.50
,, amber	120	,,	4.25
Taper ring	2	each,	1.00
Band ring, narrow	1	,,	.80
,, ,, wide	1	,,	.90
Sleeve for shell	1	,,	.90

No. 16 Edison.

Segments, India	140	per lb.,	$3.50
,, amber	140	,,	4.25
Taper ring	2	each,	1.00
Band ring, narrow	1	,,	.80
,, ,, wide	1	,,	.90
Sleeve for shell	1	,,	1.00

No. 6 Sprague.

Segments, India	56	per lb.,	$3.50
,, amber	56	,,	4.25
Taper ring, narrow	1	each,	.80
,, ,, wide	1	,,	.90
Sleeve for shell	1	,,	1.00

Micanite Commutator Insulation for Westinghouse Electric Manufacturing Company's Street Railway Motors.

No. 3.

	No. per Set.		Price.
Segments, India	95	per lb.,	$3.50
,, amber	95	,,	4.25
Taper ring	2	each,	1.40
Taper band ring	2	,,	1.25
Moulded taper and taper band in one piece	2	,,	2.65
Sectional ring	2	,,	2.80
Flat ring for end of segments	1	,,	.60
Sleeve for shell	1	,,	.90

No. 12.

Segments, India	95	per lb.,	$3.50
,, amber	95	,,	4.25
Taper ring	2	each,	1.40
Taper band ring	2	,,	1.25
Moulded taper and taper band in one piece	2	,,	2.65
Sectional ring	2	,,	2.80
Flat ring for end of segments	1	,,	.60
Sleeve for shell	1	,,	.90

No. 12-A.

Segments, India	93	per lb.,	$3.50
,, amber	93	,,	4.25
Taper ring	2	each,	1.40
Taper band ring	2	,,	1.35
Moulded taper and taper band in one piece	2	,,	2.75
Sectional ring	2	,,	2.90
Sleeve for shell	1	,,	.90

No. 36.

Prices on application.

No. 38-B.

Segments, India	135	per lb.,	$3.50
,, amber	135	,,	4.25
Moulded taper, taper band and sleeve in one piece	2	each,	2.80
Moulded taper and taper band in one piece	2	,,	2.50
Taper ring	2	,,	.85
Taper band ring	2	,,	.95
Sleeve for shell	1	,,	.75

Nos. 47 and 47-A.

Prices on application.

Nos. 48 and 48-A.

Prices on application.

No. 49-A.

	No. per Set.		Price.
Segments, India		per lb.,	$3.50
,, amber		,,	4.25
Taper ring	2	each,	.80
Taper band ring, narrow,	1	,,	.85
,, ,, ,, wide	1	,,	.95
Moulded taper and taper band in one piece	2	,,	1.85
Sectional ring	2	,,	2.60
Flat ring	1	,,	.60
Sleeve for shell	1	,,	1.10

No. 50-B and E.

Prices on application.

No. 56.

Segments, India		per lb.,	$3.50
,, amber		,,	4.25
Taper ring	2	each,	1.75
Taper band ring, narrow,	1	,,	1.80
,, ,, ,, wide	1	,,	2.20
Wide moulded ring	1	,,	4.35
Narrow ,, ,,	1	,,	4.00
Wide sectional ring	1	,,	4.60
Narrow ,, ,,	1	,,	4.00
Sleeve for shell	1	,,	1.10

No. 62.

Prices on application.

No. 68.

Segments, India		per lb.,	$3.50
,, amber		,,	4.25
Taper ring	2	each,	1.00
Taper band ring, narrow,	1	,,	1.10
,, ,, ,, wide	1	,,	1.25
Wide moulded ring	1	,,	3.00
Narrow ,, ,,	1	,,	2.75
Wide sectional ring	1	,,	3.50
Narrow ,, ,,	1	,,	3.25
Sleeve for shell	1	,,	1.25

MICANITE.

Micanite Commutator Insulation for Westinghouse Electric Manufacturing Company's Street Railway Motors (Continued).

No. 69.

	No. per Set.		Price.
Segments, India	105	per lb.,	$3.50
,, amber	105	,,	4.25
Taper ring	2	each,	1.00
Taper band, wide	1	,,	1.00
,, ,, narrow	1	,,	1.25
Taper and taper band, moulded in one piece	2	,,	2.25
Sectional ring	2	,,	2.65
Sleeve for shell	1	,,	1.25

No. 76.

Segments, India		per lb.,	$3.50
,, amber		,,	4.25
Taper ring	2	each,	2.10
Taper band ring, wide	1	,,	2.65
,, ,, ,, narrow	1	,,	2.45
Sleeve for shell	1	,,	1.75

No. 79.

Prices on application.

No. 81.

Prices on application.

Micanite Commutator Insulation for Lorain Steel Company's and Walker Company's Railway Motors.

All types.

Prices furnished on application.

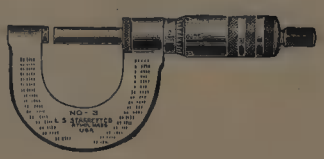
MICROMETERS (see also Calipers).

Starrett's Micrometers.



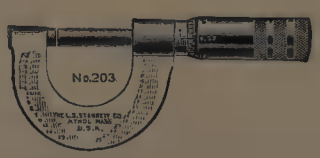
Nos. 220 and 221.

No. 220.	With finger ring, for measurements by thousandths up to one inch, with lock nut and ratchet stop	each,	$6.75
	In leather case	,,	7.25
No. 221.	With finger ring, for measurements by thousandths up to one-half inch, with lock nut and ratchet stop	each,	5.75
	In leather case	,,	6.25



Nos. 3 and 113.

No. 3.	Without finger ring, for measurements by thousandths up to one inch, with lock nut and ratchet stop	each,	6.00
	In leather case	,,	6.50
	With finger ring, extra	,,	.75
No. 113.	Without finger ring, for measurements by ten thousandths up to one inch, with lock nut and ratchet stop,	each,	7.00
	In leather case	,,	7.50
	With finger ring, extra	,,	.75
No. 203.	Without finger ring, for measurements by thousandths up to one inch; has neither lock nut or ratchet stop,	each,	5.00
	In leather case	,,	5.50
	With finger ring, extra	,,	.75
No. 209.	Without finger ring, for measurements by ten thousandths up to one inch; has neither lock nut or ratchet stop,	each,	6.00
	In leather case	,,	6.50
	With finger ring, extra	,,	.75



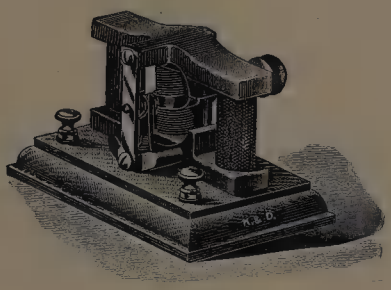
Nos. 203 and 209.

MIDGET Arc Hood (see H).

MIDGET Cut-Out Hood (see H).

MIDGET Push (see P).

MILK Warmer (see Warmer).



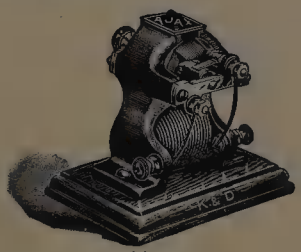
No. 15.



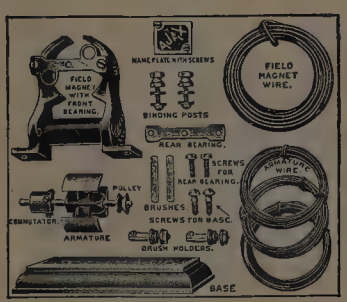
Rex.



Rex with Switch.



Ajax.



Ajax Parts.



No. 1.

MINIATURE Lamps (see L).

MINIATURE Sockets (see S).

MIRROR Reflector (see Shades).

MONITOR Bell (see B).

MOTORS, see following headings:

Motors, Battery.
" Power.
" Fan (see Fans).
" Sewing Machine.

MOTORS, Battery (see Top).

Battery and Toy Motors.

See Rheostats under R for controlling rheostats for these small battery motors.

No. 15 Manchester Motor.

Handsomely enameled, black and red. Small parts polished and nickeled. Will run at high speed with one cell dry or other battery. The best small motor made for the price.....each, $ .75

The Rex Motor.

Finished in black enamel; screws and bearings nickel plated; mounted on a polished wood stand. Runs on a single cell dry or other battery.

The Rex is packed in a neatly labeled box measuring 3 x 3½ x 3½ inches.

A copy of " Electrical Units for Boys " packed with each Rex.

Complete without batteries.....each, 1.00
Ditto, with switch.....," 1.25

The Ajax Motor.

The Ajax motor was brought out in response to a demand for a high-grade toy motor, and is well made and finished throughout. The Ajax runs on a single cell dry or fluid battery. It is finished in black enamel, decorated in gilt with nickel trimmings and mounted on a finished wood base. Occupies a space 3 x 3¼ x 4 in. Weight, about 1 pound.

A copy of " Electrical Units for Boys " packed with each Ajax.

Complete without batteries.....each, $1.50

The Ajax Parts.

The cut illustrates the Ajax parts ready to wind and assemble. All parts are nicely finished and interchangeable.

Directions accompany each set, enabling any one to produce a complete Ajax motor.

A copy of " Electrical Units for Boys " packed with the Ajax parts.

Complete.....each, $1.25

No. 1 Standard Motor.

The No. 1 motor is designed to run on a single cell battery, but can be run on two cells if more power is required. It is especially adapted for propelling mechanical toys, advertising devices, etc. Finished in black enamel; handsomely decorated with nickel trimmings. Occupies a space 3½ inches square. Weight, 1½ pounds; 2 volts; 1.5 amperes; 2,200 R.P.M. with average load.

Complete without batteries.....each, $3.00
Wound to run in series with a 16 c. p. lamp on 110-volt direct current.....each, 3.50

MOTORS, Battery.

Battery and Toy Motors (Continued).



No. 2.

No. 2 Standard Motor.

The No. 2 motor is constructed on the same lines as the No. 1. It is, however, larger and more efficient, runs on a 2-cell battery. Finished in black enamel with brass trimmings and ornamented. Occupies a space 4 inches square. Weight, 2¾ pounds; 4 volts; 2.5 amperes; 2,800 R. P. M. with average load.

Complete without batteries.....each, $5.00
Wound for lamp series circuit..... ,, 5.75

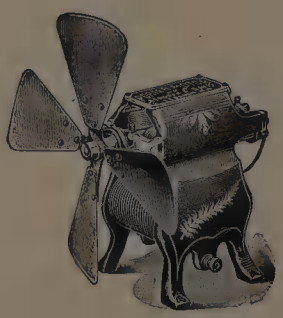


No. 3.

No. 3 Standard Motor.

The No. 3 motor is suitable for running small mechanical devices requiring a light power. It is finished in black enamel and decorated. Clears an 8-inch fan. Weight, 6½ pounds; length of shaft, 5½ inches; height, 5½ inches; width, 4 inches; 6 volts; 1.6 amperes; 1,800 R. P. M. with average load.

Complete without batteries.....each, $9.00
Wound for lamp series circuit..... ,, 10.00

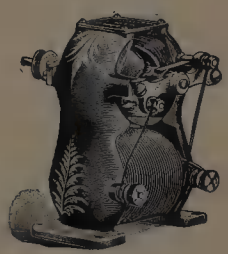


No. 4.

No. 4 Standard Motor.

The No. 4 motor is a larger and more powerful motor of the same type as our No. 3. This motor is highly efficient. Clears an 8-inch fan. Weight, 8 pounds; length of shaft, 6 inches; height, 6 inches; width, 4½ inches; 6 volts; 1.6 amperes; 1,800 R. P. M. with average load.

Complete without batteries.....each, $10.00
Wound for lamp series circuit..... ,, 11.50



No. 6.

No. 6 Standard Motor.

The No. 6 motor is designed for operating mechanical devices where it is necessary to economize space and get the greatest amount of power. Weight, 3½ pounds; length of shaft, 3½ inches; height, 4⅜ inches; width of base, 3½ inches; 6 volts; 2 amperes; 2,400 R. P. M. with average load.

Complete without batteries.....each, $6.00
Wound for lamp series circuit..... ,, 6.75



No. 8.

No. 8 Kent Dynamo or Motor.

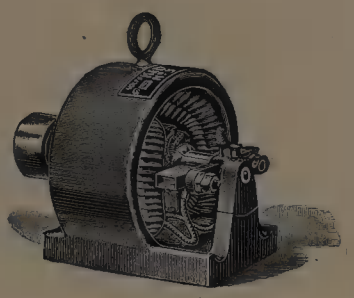
The No. 8 dynamo or motor is built to run either as a dynamo or motor, the only difference being in the binding-posts used, and the direction in which the armature runs. It is fitted with a drum armature and has a two-score pulley and self-feeding woven wire brushes. Finished in black enamel and nickel.

As a motor it will do any work requiring less power than a sewing machine, and as a dynamo, will light from 1 to 10 3-candle-power lamps. As a dynamo from 2 to 12 volts, its capacity is about 2 amperes. As a motor on a 6-volt circuit it consumes 1.5 amperes. Speed, 1,800 R. P. M. with average load. Weight, 8 pounds; length of shaft, 5½ inches; height, 6 inches; base, 5½ x 5½ inches.

Complete without batteries..... $10.00

MOTORS, Battery.

Battery and Toy Motors (Continued).



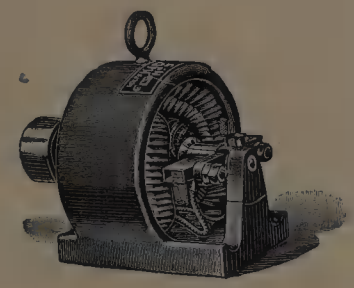
No. 5 Motor.

No. 5 K. & D. Motor.

The K. & D. No. 5 Battery Motor is designed for power purposes. Its design and construction embody the best practice common to the larger machines in use. Attention has been devoted to the detail of each part. The field is of the ring type cast solid with the frame; coils are form wound; 6-section laminated drum armature; copper commutator; improved brush holders and adjustable yoke. These features combined result in a very satisfactory motor. Finished in black enamel; 6 volts; 2 amperes; speed, 1,800 R. P. M. with average load. Weight, 9 pounds; length of shaft, 6 inches; width, 4¾ inches; height, 6 inches; diameter of pulley, 1½ inches; width, ¾ inch.

Complete without batteries.....each, $8.00

Special windings to order.

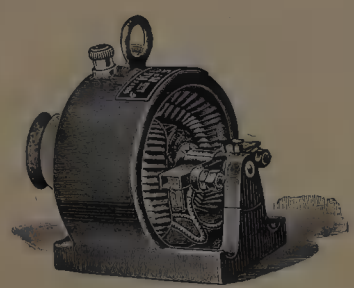


No. 9 Generator.

No. 9 K. & D. Generator.

The K. & D. No. 9 is identical in design with motor No. 5, but is shunt wound to obtain the best results as a generator. It is particularly adapted for experimental purposes requiring a small amount of current. It will light to candle power 12 6-volt 3-candle-power lamps. As an electro plating machine it will operate 5-gallon solution successfully. There are also many other uses to which this machine may be applied.

The brush holders are of an improved type and brushes require very little attention; the armature is slot wound and laminated. In fact, the most desirable and efficient features common to the larger generators are retained in this little machine. It has an output of 36 watts. Finish, black enamel; speed, 2,200 R. P. M.; 6 volts; 6 amperes. Weight, 9 pounds; length of shaft, 6 inches; diameter of pulley, 1½ inches; width ¾ inches. (Width, 4¾ inches. Height, 6 inches.) Complete.....each, $8.00



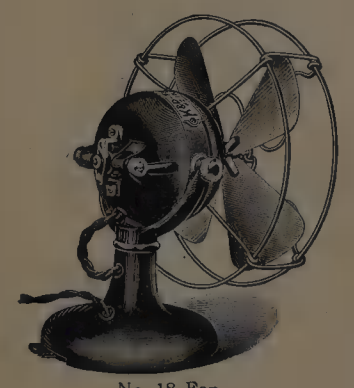
No. 9 Plating Dynamo.

No. 9 Plating Dynamo.

A shunt wound and very powerful little dynamo. Can be operated from any convenient source of power. Occupies a space of 6 x 4¾ x 6. Weight, 9 pounds.

As a plating dynamo it has many advantages over primary batteries. The renewal of elements and solution are disposed of with this arrangement, and has the strength to operate a five-gallon bath successfully. Its design and construction embody the best practice common to the larger machines in general use. The field is of the ring type cast solid with the frame. The coils are form wound and taped and are safe from mechanical injury or breakdown. The armature is laminated and slot wound which prevents its heating. The commutator is of hard copper and sparkless. The brush holders are of new design and add greatly to the efficiency of the machine. The brush holder yoke is adjustable and is an advantage in regulating and operating. The bearings are of hard bronze and are nicely fitted. Only the best material is used in its construction. Finished in black enamel and furnished with 1½-inch grooved or flat pulley as desired. At speed of 2,200 R. P. M., it generates 2 volts and 6 amperes.

Complete.....each, $8.00



No. 18 Fan.

No. 18 K. & D. Fan.

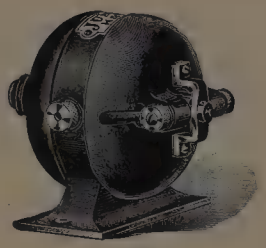
The K. & D. No. 18 is a special battery motor fan.

The brushes and commutator are exposed to inspection and any irregularity of performance due to worn out brushes, dirt on commutator, or any other cause may be at once noticed and the cause removed. The bearings are composed of bronze, and provision is made for oil, which requires hardly any attention. A switch in the base makes it entirely self-contained. In appearance it is very attractive and is finished in black and nickel. Diameter of fan, 6 inches. Speed, 2,300 R. P. M. 7 volts. ½ ampere. Weight, 3½ pounds. To operate this fan, a suitable battery of 20 cells in multiples of five should have a life of about 200 hours or more.

Complete without batteries..... $6.50

Wound for lamp series circuit..... 8.00

MOTORS, Battery.



Juno Motor.

Battery and Toy Motors (Continued).

Juno Motor.

The Juno is a semi-enclosed battery power motor and possesses features electrical and mechanical, which place it in a class ahead of any previous design in small battery motors.

The uses to which this little machine can be applied are numerous and varied. It develops sufficient power to operate slot machines, sign flashers, music boxes, etc.

The field magnet is cast in one piece of special metal; coils are form wound; armature is of the iron-clad drum type, built up of steel laminations. These features are worth consideration and are seldom found in motors of this size. Standard battery winding; 4 volts; 1.5 amperes; 2,000 R. P. M. with average load. Finished in black enamel and nickel. Occupies a space 3½ x 3½ x 3½. Weight, 2 pounds.

Complete without batteries	each,	$5.00
Wound for lamp series circuits	,,	6.50

Fans for Toy Motors.

3½-inch nickel fan for Rex motor	each,	$ .20
4¾ ,, aluminum fan for Ajax motor	,,	.25
4¾ ,, nickel or aluminum fan for No. 1 motor	,,	.25
5½ ,, nickel fan for No. 2 motor	,,	.50
6 ,, ,, ,, ,, ,, 6 and No. 18 motor	,,	.75
8 ,, ,, ,, ,, ,, 3 ,, ,, 4 ,,	,,	1.00

MOTORS, Power.

Westinghouse D. C. Power Motors.

Small Power Motors, Type Dz.

H. P.	R. P. M.	Winding.	Frame.	Volts.	El. Watts.	Style No.	Price.
1/20	1000	Shunt	1	110	90	63745	$19.00
	1000	,,	1	220	100	63746	21.50
	1000	Series	1	110	85	63747	18.00
	1000	,,	1	220	90	63748	20.50
1/12	1500	Shunt	1	110	125	63749	20.50
	1500	,,	1	220	130	63750	23.00
	1500	Series	1	110	120	63751	18.00
	1500	,,	1	220	125	63752	20.50
1/8	1500	Shunt	2	110	160	63753	23.50
	1500	,,	2	220	165	63754	25.50
	1500	Series	2	110	155	63755	22.00
	1500	,,	2	220	160	63756	24.00
	2500	Shunt	1	110	170	63757	20.50
	2500	,,	1	220	175	63758	22.50



Type Dz.

Power Motors, Type R.

Shunt wound, constant speed, open type. Rigid construction, phosphor bronze self-oiling bearings, interchangeable front and rear. Heavy shafts. High efficiency and low temperature. Bed plates extra.

110 Volts.

H. P.	Volts.	Full Load Speed.	Frame.	Price.
1/6	110	1600	1	$54.00
1/4	110	575	3	86.00
1/4	110	1600	2	68.00
1/4	110	2100	1	62.00
1/3	110	850	3	84.00
1/2	110	575	4	104.00
1/2	110	2000	2	72.00
3/4	110	850	4	104.00
3/4	110	1300	3	90.00
1	110	1800	3	90.00
1¼	110	1250	4	108.00
1¾	110	1800	4	108.00



Type R Motor.

(*Continued on next page.*)

MOTORS, Power.

Westinghouse D. C. Power Motors (Continued).

Power Motors, Type R.

220 Volts.

H. P.	Volts.	Full Load Speed.	Frame.	Price.
1/6	220	1600	1	$57.00
1/4	220	1600	2	70.00
1/4	220	2100	1	65.00
1/4	220	450	3	90.00
1/3	220	*700	3	88.00
1/2	220	*450	4	112.00
1/2	220	2000	2	74.00
3/4	220	1300	3	92.00
3/4	220	*700	4	110.00
1	220	1800	3	92.00
1 1/4	220	1250	4	110.00
1 3/4	220	1800	4	110.00

500 Volts.

1/2	500	1375	3	$93.00
3/4	500	1850	3	95.00
1	500	1275	4	109.00
1 1/2	500	1825	4	113.00

* Special to order.

Pulley Sizes and Approximate Weights.

Frame.	Pulley. Diam.	Face.	Wt.	Frame.	Pulley. Diam.	Face.	Wt.
1	2 1/2 in.	x 2 in.	80 lbs.	3	3 1/2 in.	x 3 in.	160 lbs.
2	3 ,,	x 2 1/2 ,,	110 ,,	4	4 ,,	x 3 1/2 ,,	235 ,,

Speeds may vary 5 per cent below or above those given in above list.

Prices include pulley and no voltage release starting rheostat. No rheostats furnished or required with 1/6-H. P. motor. Paper pulleys furnished if desired.

Power Motors, Type S.

Shunt and compound wound, constant speed, open and semi-enclosed. Rigid construction, heavy shafts, interchangeable self-oiling bearings, with two oil rings in each bearing; laminated poles. High efficiency, close regulation, low temperature.



Type S Motor.



1/4 H. P. for Rheostat for Type S Motor.

	110 Volts.			220 Volts.			500 Volts.		
Fr.	H. P.	R. P. M.	List.	H. P.	R. P. M.	List.	H. P.	R. P. M.	List.
1	2	1200	$166.00	2	1200	$166.00	2	1425	$167.00
1	3	1800	168.00	3	1800	168.00	3	2000	169.00
2	3.5	975	220.00	3.5	975	230.00	4	1280	232.00
2	4	1175	224.00	4	1175	232.00	5.25	1600	236.00
2	6	1465	232.00	6	1465	236.00			
3	7.5	975	328.00	7.5	975	334.00	7	1050	334.00
3	10	1325	332.00	10	1325	338.00	8	1400	334.00
4	8	835	354.00	8	835	362.00	8	900	364.00
4	11	1125	368.00	11.5	1125	376.00	10	1200	362.00
4				15	1675	372.00	12	1450	366.00
5	10	650	408.00	10	650	432.00	10	815	422.00
5	13	875	404.00	13	875	426.00	15	1150	432.00
5				20	1300	450.00			
6	13	630	494.00	13	630	516.00	13	690	526.00
6	17	975	510.00	20	975	540.00	20	1040	546.00
7	15	560	620.00	15	560	632.00	15	620	632.00
7	25	850	652.00	25	850	664.00	25	950	642.00
7	30	900	702.00	30	1025	694.00			
8	25	630	812.00	25	630	804.00	20	550	816.00
8							25	685	822.00
8							30	900	814.00
8L	30	630	932.00	40	935	936.00			
8L	40	935	982.00						
9				30	600	914.00	22	540	886.00
9							30	675	914.00
9							35	900	904.00
9L	35	600	1012.00						
10	25	375	1022.00	35	575	1004.00	30	550	974.00

(*Continued on next page.*)



6½ H. P. Rheostat for Type S Motor.

MOTORS, Power.

Westinghouse D. C. Power Motors (Continued)

Power Motors, Type S.

Fr.	110 Volts. H. P.	R. P. M.	List.	220 Volts. H. P.	R. P. M.	List.	500 Volts. H. P.	R. P. M.	List.
10				55	825	$1102.00	50	825	$1072.00
10L	45	575	$1202.00						
10L	55	700	1248.00						
11				40	550	1126.00	40	550	1146.00
11							65	825	1234.00
11L	30	350	1232.00						
11L	50	355	1328.00						
12				30	335	1304.00	50	550	1372.00
12				50	525	1382.00			
12L	35	335	1462.00						
12L	60	525	1572.00						
13L	45	300	1762.00						

Larger sizes on application.

The above prices include rails for floor mounting, standard pulleys, and no-voltage release starting rheostats, but not covers for semi-enclosures.

Frames No. 7 and over can be furnished horizontally split if required at an increased list price of $40 per frame. Speeds may vary 5 per cent above or below those given.

The 110- and 220-volt motors will stand 15 per cent increase in speed at normal rating, with variable speed field rheostat.

Type S, Omissions and Additions.

rame.	Rails, Floor Mounting.	Std. Pulley.	Rails, Wall or Ceiling Mounting.	H. P.	No. Voltage Release and Starting Rheostat. 110 Volts.	220 Volts.	500 Volts.
1				¾ x 1¼	$8.40	$8.40	$8.80
1	$8.00	$2.50	$10.00	1½ x 2½	8.60	8.60	9.00
2	8.00	3.00	10.00	2¾ x 3½	10.80	10.80	11.00
3	12.00	3.00	14.00	3¾ x 5	15.30	14.00	14.00
4	12.00	2.50	14.00	5¼ x 6½	20.70	16.70	16.70
5	20.00	4.00	22.00	7 x 8	24.00	19.00	19.00
5L	20.00	4.00	22.00	8½ x 10	28.00	22.00	22.00
6	20.00	4.50	22.00	11 x 13½	34.00	25.00	25.00
7	29.00	7.00	31.00	14 x 17	40.00	32.00	32.00
8	29.00	12.50	31.00	18 x 22	44.00	40.00	36.00
8L	29.00	12.50	31.00	23 x 28	52.00	44.00	42.00
9	33.00	13.00	36.00	30 x 35	62.00	54.00	54.00
9L	33.00	13.00	36.00	38 x 45	122.00	66.00	66.00
10	33.00	16.00	36.00	50 x 50	148.00	122.00	122.00
10L	33.00	16.00	36.00				
11	48.00	19.00	52.00				
11L	48.00	19.00	52.00				
12	48.00	27.00	52.00				
12L	48.00	27.00	52.00				
13	60.00	38.00	66.00				
13L	60.00	38.00	66.00				

Westinghouse A. C. Power Motors.



Da Motor.

Small Power Motors, Type Da.

H. P.	Cycles.	R. P. M.	Frame.	Volts.	El. Watts.	Style No.	List Price.
½0	25	1400	1	105–115	110	63721	$31.50
	25	1400	1	210–230	115	63722	35.00
	60	1700	1	100–110	100	63723	28.50
	60	1700	1	110–120	100	63724	28.50
	60	1700	1	215–230	100	63725	31.75
	133	2500	1	100–110	110	63726	28.50

(*Continued on next page.*)

MOTORS, Power.

Westinghouse A. C. Power Motors
(Continued).

Small Power Motors, Type Da.

H. P.	Cycles.	R. P. M.	Frame.	Volts.	El. Watts.	Style No.	List Price.
¼	25	1400	2	105–115	165	63727	$49.00
	25	1400	2	210–230	170	63728	54.50
	60	1700	2	100–110	155	63729	44.00
	60	1700	2	110–120	155	63730	44.00
	60	1700	2	215–230	155	63731	49.00
	60	3400	1	100–110	165	63732	34.00
	60	3400	1	110–120	165	63733	34.00
	60	3400	1	215–230	165	63734	37.75
	133	2500	2	100–110	165	63735	40.00
⅓	25	1400	3	105–115	220	63736	51.00
	25	1400	3	210–230	230	63737	56.75
	60	1700	3	100–110	200	63738	46.00
	60	1700	3	110–120	200	63739	46.00
	60	1700	3	215–230	200	63740	51.00
	60	3400	2	100–110	220	63741	40.00
	60	3400	2	110–120	220	63742	40.00
	60	3400	2	215–230	220	63743	44.50
	133	2500	3	100–110	220	63744	46.00



Back.



Front.
Type CC Motor.

Power Motors, Type CC.

Single-phase, 60-cycle induction motors. Split end brackets; 5 horse-power and above. Split bearings. Automatic friction clutch pulley.

H. P.	R. P. M.	Voltage.	Approx. Gross Weights.	Pulley Dimensions.	List Price.
¼	1700	100	100	3½ x 1¾	$145.00
½	1700	100–200	125	3½ x 1¾	155.00
1	1700	100–200	175	4½ x 2½	209.00
2	1700	100–200	260	4½ x 2½	246.00
3	1700	100–200	340	5 x 2½	268.00
5	1120	100–200	525	6 x 4	366.00
7½	1120	100–200	625	9 x 5	534.00
10	1120	100–200	830	9 x 5	600.00



Up to 2 H. P.



2 H. P. and above.
Phase Splitters
for Type CC Motors.

Add to List Price.

For substitution of clutch gear ¼ and ½ horse-power, $4.00; 1, 2 and 3 horse-power, $6.00; 5, 7½, and 10 horse-power, $11.00.

For substitution of clutch coupling ¼ and ½ horse-power, $24.00; 1, 2, and 3 horse-power, $26.00; 5, 7, and 10 horse-power, $32.00.

For substitution of bedplate and drip pan for ceiling suspension, 5, 7½, and 10 horse-power, $12.00.

For solid pulley used for hand starting ¼, ½, and 1 horse-power, $2.50.

Deduct from List Price.

For omission of clutch pulley ¼ and ½ horse-power, $19.00; 1 horse-power, $24.00.

For omission of bedplate and belt tightener 5 horse-power, $7.00; 7½ and 10 horse-power, $8.00.

For omission of phase splitter ¼ and ½ horse-power and 1 horse-power, $30.00.

Prices include automatic clutch pulley and starting device, also bedplate and belt tightener for 5 horse-power motors and larger.



Type CCL Motor.



Auto-Starters for Type CCL Motors.
Up to 50 H. P.



Auto-Starters for Type CCL Motors.
50 H. P. and above.

MOTORS, Power.

Westinghouse A. C. Power Motors (Continued).

Power Motors, Type CCL.

Polyphase induction motors, 60-cycle, two-bearing, belted. Split-end brackets above 5 horse-power. Split bearings, two oil rings per bearing. Ample air gap. Coils, oil- and moisture-proof.

H. P.	Approx. Full Load Speed.	Approx. Gross Weight.	Omit for Pulley.	Omit for Bed-plate.	Omit for Auto Starter.	List Complete.
†§* ½	1700	90	$1.80	$4.00		$84.00
†§*1	1700	125	1.80	7.00		104.00
†§*2	1700	195	2.00	7.00		126.00
§*2	1120	235	2.50	8.00		160.00
†§*3	1700	235	2.50	8.00		144.00
§*3	1120	325	2.50	9.00		186.00
†§*5	1700	325	2.50	9.00		158.00
5	1120	510	4.00	10.00		240.00
5	850	660	4.00	11.00		308.00
7½	1700	910	2.60	10.00	$90.00	300.00
†7½	1120	910	4.00	10.00	90.00	386.00
7½	850	1060	4.00	11.00	90.00	484.00
10	1700	910	2.50	10.00	90.00	374.00
†10	1120	1060	4.00	11.00	90.00	452.00
10	850	1160	5.00	11.00	90.00	506.00
15	1700	1460	4.50	11.00	120.00	474.00
†15	1120	1460	5.00	11.00	120.00	518.00
15	850	1615	5.50	13.00	120.00	606.00
20	1700	1615	5.00	13.00	130.00	562.00
†20	1120	1615	5.50	13.00	130.00	622.00
20	850	1620	8.00	13.00	130.00	660.00
30	1700	1770	6.00	16.00	130.00	660.00
†30	1120	1770	6.00	14.00	130.00	704.00
†30	850	1775	8.00	16.00	130.00	858.00
40	1700	2075	6.00	18.00	160.00	826.00
†40	1120	2150	8.00	20.00	160.00	880.00
†40	850	2150	10.00	20.00	160.00	924.00
50	1700	2075	8.00	18.00	170.00	902.00
50	1120	2150	10.00	20.00	170.00	946.00
†50	850	2550	12.00	24.00	170.00	998.00

Larger sizes on application.

* Bedplates may be omitted from these motors as the feet are slotted for belt adjustment.

† Motors of standard speeds.

§ Standard voltages for these motors are 100, 200, and 400 volts; all others, 200 and 400 volts.

Prices and weights include bedplates for floor, wall, or ceiling mounting and standard paper pulleys. Oil-immersed auto-starters are also included except for the 5 horse-power and smaller sizes, which do not require auto-starters.

Give following information when ordering: horse-power, phase, cycles, voltage, speed, diameter and face of pulley, floor, wall, or ceiling mounting, starting torque in terms of full-load torque; if special shaft, give dimensions.

The Standard Motors, Direct Current.

Small Ventilated Type Motors.

These motors are usually started with a switch provided by the purchaser. Speed regulators can be supplied at extra cost.

The use of a starting box with automatic release is recommended with frame No. ⅛ when ordered as a ¼ H. P. shunt wound. For starting box, add $9 to list.

Any of these small motors listed, shunt wound, will be supplied with compound winding when so ordered, without extra cost; and as these motors are usually started without rheostats, we specially recommend the compound winding when practical.

The frame No. 1/10 presents a practical motor in extremely small compass, for those classes of service where very little power is required, but where the motor should have all the durability of the larger machines.

While we list this motor in speeds from 1,000 to 3,000 R. P. M., it should be remembered that it is furnished series-wound only, and that

(*Continued on next page.*)

MOTORS, Power.

The Standard Motors, Direct Current (Continued).

Small Ventilated Type Motors.

the speed will vary with the load. It is usually necessary to determine the exact winding and pulley data for each case by experiment.

These small motor frames are not furnished wound for 500 volts nor for use as generators.



Frame No. $\frac{1}{3}$.

The motors listed are open type and without sliding base. Enclosing covers will be furnished on frames Nos. $\frac{1}{7}$, $\frac{1}{7}$-P, and $\frac{1}{6}$ when ordered. For enclosing covers, add 75 cents to list.

Frame No. $\frac{1}{7}$-P will be furnished with sliding base when ordered. For sliding base add $2 to list. Sliding base cannot be furnished with any of the other frames.

The speed of series-wound motors varies with the load. They will race when running idle and slow down very much when carrying heavy loads.

Shunt-wound motors run at more nearly constant speed than series-wound motors, and in large sizes the speed of shunt-wound motors is practically constant, independent of load, but in the small sizes listed herein the variation in speed between full load and no load may amount to as much as 20 per cent, this depending on the size of the motor.



Frame No. $\frac{1}{7}$.

The speed of compound-wound motors varies more than that of shunt-wound motors, and much less than that of series-wound motors, under changes of load. They start more promptly and are better adapted to carrying overloads than shunt-wound motors.

The speeds listed herein are those at which the motors of either series, shunt or compound winding, will run when carrying their rated loads.

The pulleys usually furnished with these motors are grooved for round belts, except frame No. $\frac{1}{6}$ is furnished with pulleys having flat face for 1-inch belt.

Frame No.	H. P.	Speed.	Dimensions in Inches. Diam.	Length Over Pulley.	Hg't.	Pulley.	Price Series Wound 110 V.	Price Series Wound 220 V.	Price Shunt Wound. 110 V.	Price Shunt Wound. 220 V.
$\frac{1}{10}$	$\frac{1}{30}$	1000	3 $\frac{15}{16}$	5$\frac{1}{4}$	4 $\frac{1}{16}$	1	$16.25	$17.50		
	$\frac{1}{20}$	1500								
	$\frac{1}{16}$	2000								
	$\frac{1}{10}$	3000								
$\frac{1}{8}$	$\frac{1}{16}$	1000	5$\frac{1}{2}$	8$\frac{1}{4}$	6 $\frac{1}{16}$	2	16.25	17.50	$19.50	$22.00
	$\frac{1}{12}$	1500								
	$\frac{1}{8}$	2000								
$\frac{1}{7}$	$\frac{1}{8}$	1700	5$\frac{3}{4}$	9$\frac{3}{4}$	5$\frac{7}{8}$	2	19.50	20.50	22.50	25.00
	$\frac{1}{7}$	2000								
	$\frac{1}{6}$	2300								
$\frac{1}{7}$-P	$\frac{1}{16}$	1000	6$\frac{1}{2}$	7	7$\frac{3}{4}$	2	18.00	20.00	23.75	25.75
	$\frac{1}{10}$	1500								
	$\frac{1}{8}$	1800								
	$\frac{1}{6}$	2400								
$\frac{1}{6}$	$\frac{1}{8}$	1200	6$\frac{3}{4}$	10$\frac{1}{4}$	6$\frac{13}{16}$	2	28.75	30.00	32.50	39.00
	$\frac{1}{6}$	1600								
	$\frac{1}{4}$	2400								

Piano Motors.



Piano Motor.

This small motor was designed specially for the driving of automatic playing musical instruments.

Its principal qualities by which it is adapted to this class of work are extreme durability, noiselessness, cleanliness, ability to run for long periods locked up in the instrument case with no attention, powerful starting torque, belt adjusting base where required, small dimensions in the direction where space is usually limited, *i. e.*, over the length of shaft and pulley, and the general convenience and ease of its installing.

MOTORS, Power.

The Standard Motors, Direct Current (Continued).

Piano Motors.

It is made in one size frame only, but with modifications as follows: With or without sliding base, with or without enclosing covers, series, shunt or compound windings, for 110 or 220 volts, for any speed desired from 750 to 3,000 R. P. M., giving power in proportion to speed.

When writing for prices, state fully the nature of the work the motor is to perform.

H. P.	$\frac{1}{6}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{1}{16}$
Speed, R. P. M.	2400	1800	1500	1000

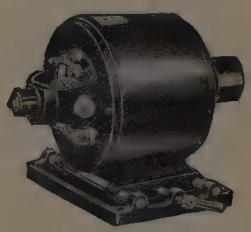
Dimensions and Weights:

Length over all	7	in.
Diameter of body	$6\frac{1}{2}$	,,
Height to centre of shaft, with sliding base	$4\frac{1}{4}$	,,
Height to centre of shaft without sliding base	$3\frac{3}{8}$	,,
Net weight with sliding base	24	lbs.
Net weight without sliding base	23	,,

The Standard Ventilated Type Motors.

Protected type, laminated pole pieces and cores, except frames Nos. $\frac{1}{4}$ and $\frac{1}{2}$. Frames No. 1 and above have 4 poles, and forced draught ventilation. Belt tightening base.

Will carry 25 per cent overload for one hour without dangerous heating, or 100 per cent momentary overload if placed in free air circulation.



Frame No. $\frac{1}{4}$.



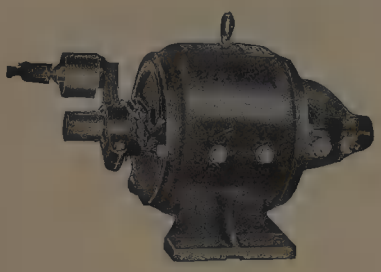
Frame No. 1.

Frame No.	H. P.	Speed. 110 and 220 Volts.	Speed. 500 Volts.	Standard Pulley. Diam.	Standard Pulley. Face.	Net Wt. with Sliding Base.	Net. Wt. without Sliding Base.	Shipping Wt. with Base and Starting Box.	List. 110 V.	List. 220 V.	List. 500 V.
$\frac{1}{4}$	$\frac{1}{4}$	1650	1650	3	$1\frac{1}{2}$	80	65	125	$57.50	$61.50	$77.50
	$\frac{1}{3}$	2200	2200						60.00	64.00	80.00
$\frac{1}{2}$	$\frac{1}{4}$	800		4	2	95	83	145	70.00	74.00	
	$\frac{1}{2}$	1600	1700						70.00	74.00	92.50
$\frac{3}{4}$	$\frac{1}{2}$	1000	1100	4	$2\frac{1}{2}$	160	135	215	91.50	95.00	106.50
	$\frac{3}{4}$	1575	1750						91.50	95.00	104.50
1	$\frac{1}{2}$	750	825	5	$2\frac{1}{2}$	190	165	245	117.50	122.50	132.50
	$\frac{3}{4}$	1100	1200						117.50	122.50	132.50
	1	1500	1600						117.50	122.50	132.50
$1\frac{1}{2}$	$\frac{3}{4}$	700	800	5	3	220	200	285	132.50	140.00	150.00
	1	900	1000						132.50	140.00	150.00
	$1\frac{1}{2}$	1400	1500						132.50	140.00	150.00
	2	1800	1850						135.00	142.50	152.50
2	1	550	600	$5\frac{1}{2}$	$3\frac{1}{2}$	320	280	400	168.00	179.50	192.00
	$1\frac{1}{2}$	875	950						168.00	179.50	192.00
	2	1100	1200						170.00	175.00	192.50
	3	1600	1650						172.50	177.50	195.00
3	2	800	1000	6	4	400	360	500	201.00	213.50	227.50
	3	1150	1350						204.00	213.50	227.50
	4	1600	1750						209.00	218.50	232.50
4	3	800	900	$6\frac{1}{2}$	4	600	543	700	265.00	267.50	280.00
	4	1000	1200						272.00	276.00	286.00
	5	1400	1500						274.00	275.00	286.00
5	5	900	975	7	$4\frac{1}{2}$	740	665	850	309.00	316.00	332.00
	$7\frac{1}{2}$	1300	1400						320.00	320.00	340.00
$7\frac{1}{2}$	$7\frac{1}{2}$	900	1000	8	5	900	800	1060	387.00	376.00	398.00
	10	1200	1300						400.00	379.00	400.00
10	$7\frac{1}{2}$	750	750	9	6	1150	1050	1350	462.00	436.00	458.00
	101	000	1000						462.00	436.00	458.00
$12\frac{1}{2}$	$12\frac{1}{2}$	850	1000	10	7	1200	1135	1410	494.00	472.00	485.00
	15	1080	1200						494.00	472.00	485.00

MOTORS, Power.

The Standard Motor, Direct Current (Continued).

Linotype Motors.



Linotype Motor.

The motor is furnished in frame ¾, shunt-wound, giving ¼ horse-power at 450 R. P. M. for 110 to 115 volts, or 220 to 230 volts, and 500 R. P. M. for 500 volts. A pulley 2-inch diameter by 2-inch face for 110 or 220 volt motors, and 1¾-inch diameter by 2-inch face for 500 volt motors, is usually furnished, which, belted directly to the 14-inch pulley on the linotype, gives the correct speed as generally required of the linotype.

The idler pulley, which is adjustable, wraps the slack side of the belt around the driving pulley, thus giving a good arc of contact and preventing slippage.

Sliding base is not furnished unless specially ordered, when it will be supplied at an extra cost. The idler pulley serves to sufficiently tighten the belt.

The top halves of the motor heads are enclosed with removable covers having a fine brass mesh which prevents the metal from falling on to the brushes, commutator, or windings, while allowing good ventilation.

Starting box or speed regulator is not usually required and is not included in the above price, the motor being started and stopped with a knife or snap switch located within easy reach of the operator. However, speed regulator can be furnished when required.

Frame ¾ { 110–115 volt motor $93.50
220–230 ,, ,, ... 101.00
500 ,, ,, ... 109.75

General Electric Sewing Machine Motors.

The complete outfit consists of the motor, a rocker arm with idle pulley and brake, leather belt, clamp, hooks, and treadle chain.

General Electric sewing machine motors can be attached to most of the standard sewing machines of both the drop and stationary head types. Direct current motors of $\frac{1}{15}$ horse-power capacity and alternating current motors of $\frac{1}{30}$ horse-power are supplied for domestic use.

Outfits for Stationary Head Machines.

Singer, Wheeler & Wilson, New Home, White, Domestic, Demorest, and Standard.



Motor for Stationary Head Machine.

Alternating Current Single-Phase.

Cat. No.	Type.	Poles.	H. P.	Speed.	Volts.	Cycles.	Weight in Lbs. Net.	Weight in Lbs. Shipping.	List Price.
23914	UI	8	$\frac{1}{30}$	1875	110	125	25	46	$25.00
23915	,,	4	$\frac{1}{30}$	1800	110	60	25	46	25.00
31626	,,	8	$\frac{1}{30}$	1875	220	125	25	46	25.00
31627	,,	4	$\frac{1}{30}$	1800	220	60	25	46	25.00
31628	IS	8	$\frac{1}{15}$	1875	110	125	29	51	40.00
31629	,,	4	$\frac{1}{15}$	1800	110	60	29	51	40.00
31630	,,	8	$\frac{1}{15}$	1875	220	125	29	51	40.00
31631	,,	4	$\frac{1}{15}$	1800	220	60	29	51	40.00
				Direct Current.					
23916	FD	2	$\frac{1}{15}$	1600	115		21	43	$30.00
31632	,,	2	$\frac{1}{15}$	1600	230		21	43	32.00

For Singer Drop Head Machines.



Motor for Drop Head Machine.

Alternating Current Single-Phase.

23917	UI	8	$\frac{1}{30}$	1875	110	125	25	46	$25.00
23918	,,	4	$\frac{1}{30}$	1800	110	60	25	46	25.00
31635	,,	8	$\frac{1}{30}$	1875	220	125	25	46	25.00
31636	,,	4	$\frac{1}{30}$	1800	220	60	25	46	25.00
				Direct Current Shunt-Wound.					
23919	FD	2	$\frac{1}{15}$	1600	115		21	43	$30.00
31637	,,	2	$\frac{1}{15}$	1600	230		21	43	32.00

For Wilcox & Gibbs Stationary or Drop Head.

Alternating Current Single-Phase.

23920	UI	8	$\frac{1}{30}$	1875	110	125	25	46	$25.00
23921	,,	4	$\frac{1}{30}$	1800	110	60	25	46	25.00
31638	,,	8	$\frac{1}{30}$	1875	220	125	25	46	25.00
31639	,,	4	$\frac{1}{30}$	1800	220	60	25	46	25.00
				Direct Current Shunt-Wound.					
23922	FD	2	$\frac{1}{15}$	1600	115		21	43	$30.00
31640	,,	2	$\frac{1}{15}$	1600	230		21	43	32.00

(*Continued on next page.*)

MOTORS, Power.

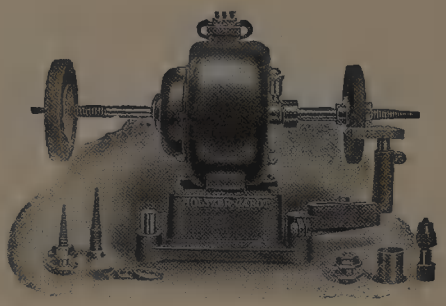
General Electric Sewing Machine Motors (Continued).

For Factory Machines.

Catalogue numbers in the following table cover motors with clamp foot and include attachment similar to that furnished with outfits for stationary head machines:

Direct Current Shunt-Wound.

Cat. No.	Type.	Poles.	H.P.	Speed.	Volts.	Wt. in Lbs. Net.	Wt. in Lbs. Shipping.	List Price.
31633	FD	2	$\frac{1}{10}$	1500	115	23	45	$38.00
31634	,,	2	$\frac{1}{10}$	1500	230	23	45	40.00



Styles Q and R.

Catalogue numbers in the following tables cover motors with flat feet and do not include attachments:

Alternating Current Single-Phase.

Cat. No.	Type.	Poles.	H.P.	Speed.	Volts.	Cycles.	Wt. in Lbs. Net.	Wt. in Lbs. Shipping.	List Price.
32062	IS	8	$\frac{1}{10}$	1875	110	125	35	55	$47.00
32063	,,	4	$\frac{1}{10}$	1800	110	60	35	55	47.00
32064	,,	8	$\frac{1}{10}$	1875	220	125	35	55	50.00
32065	,,	4	$\frac{1}{10}$	1800	220	60	35	55	50.00

Direct Current Shunt-Wound.

Cat. No.	Type.	Poles.	H.P.	Speed.	Volts.	Wt. in Lbs. Net.	Wt. in Lbs. Shipping.	List Price.
27683	FD	2	$\frac{1}{10}$	1500	115	22	44	$34.00
27684	,,	2	$\frac{1}{10}$	1500	230	22	44	36.00

The speeds given in the foregoing list for direct current motors are approximately correct at full load; in the case of the alternating current motors, the synchronous speeds are given, and at full load they will operate at from 5 per cent to 10 per cent below these speeds.

H.-C. Alternating Current Power Motors.

Styles Q and R.

These grinding and buffing motors will operate wheels 4 to 8 inch on Style Q and 8 to 10 inch on Style R.

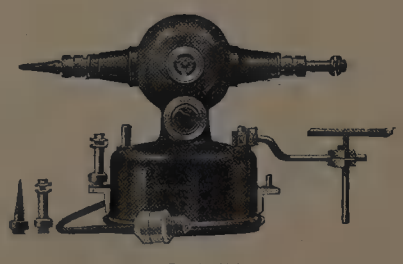
Dust and moisture proof.

Speed, 1,800 revolutions per minute.

Prices include taper chuck for buffing wheels, combination chuck for grinding wheels, etc., and tool rest. No starting box necessary.

Style Q. $\frac{1}{2}$ H. P. 104 volts, 60 or 125 to 133 cycles.....each, $68.75
$\frac{1}{2}$ H. P. 208 volts, 60 or 125 to 133 cycles.....each, 71.00

Style R. 1 H. P. 208 volts, 60 or 125 to 133 cycles.....each, 105.75
Buffing chuck only..... ,, 3.50
Combination chuck only... ,, 4.00
Grinding ,, ,, ... ,, 3.00
Drill only..... ,, 5.00
Tool rest for Style Q..... ,, 3.00
,, ,, ,, ,, R..... ,, 4.50



Style W.

Style W.

Dust and moisture proof, full strength on all speeds, 200 to 3,500 R. P. M., may be attached to lamp socket. Hollow shaft for turning. Adjustable tool and hand rests.

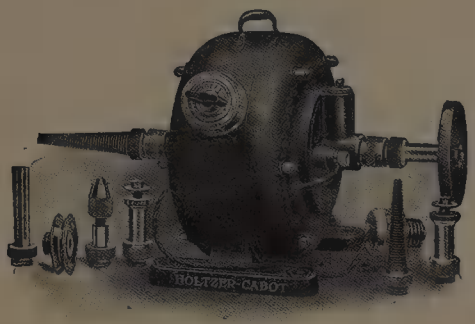
Complete, with 5 chucks, plug, and cord

Style W. $\frac{1}{5}$ H. P. 104 volts, 60 or 125 to 133 cycles.....each, $60.00
$\frac{1}{5}$ H. P. 208 volts, 60 or 125 to 133 cycles.....each, 64.00

Prices include 2 buffing and 3 grinding chucks.

MOTORS, Power.

H.-C. Alternating Current Power Motors
(Continued).



Style P.

Style P.

Dust and moisture proof, one speed. May be attached directly to lamp socket. Prices include 2 buffing chucks and 3 grinding chucks.

Style P. $\frac{1}{3}$ H. P. 104 volts, 60 or 125 to 133 cycles.....each, $46.50
$\frac{1}{3}$ H. P. 208 volts, 60 or 125 to 133 cycles.....each, 51.00

H.-C. Direct Current Power Motors.

Style C.

Dust and moisture proof, four speeds, may be attached to lamp socket. Price includes 2 buffing chucks and 3 grinding chucks.

Style C. $\frac{1}{3}$ H. P. 110 volts.....each, $33.00
220 ,, ... ,, 36.00



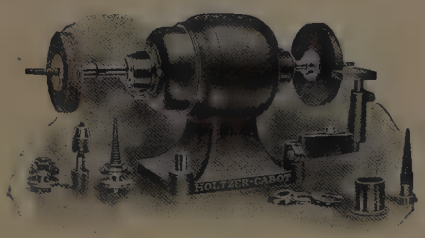
Style C.

Styles D, E, and F.

Dust and moisture proof. Speeds, from 2,200 to 2,700 revolutions per minute.

Prices include taper chuck for buffing wheels, combination chuck for buffing or grinding wheels, tool rest and starting box.

		Each.
Style D. $\frac{1}{4}$ H. P. 4- to 6-in. wh'l,	110 volts,	$52.00
	220 ,,	54.50
	500 ,,	62.00
Style E. $\frac{1}{2}$ H. P. 6- to 8-in. wh'l,	110 ,,	66.50
	220 ,,	69.00
	500 ,,	76.50
Style F. 1 H. P. 8- to 10-in. wh'l,	110 ,,	93.00
	220 ,,	95.50
	500 ,,	104.50
Buffing chuck only		3.50
Combination chuck only		4.00
Grinding ,, ,,		3.00
Drill only		5.00
Tool rest for D or E		3.00
,, ,, ,, F		4.50



Styles D, E, and F.

Hisey Portable Electric Grinders.

For direct current circuits, 50 to 250 volts, standard types, 110 and 220 volts. Dust proof; spindle carries taper cone bushings, running in 3° and 45° bearings, adjustable for wear. V slide has 3-inch travel.

Especially adapted to grinding centres, cutters, reamers, dies, rolls, and surface grinding.

Prices include following attachments:

With Type A Grinder.

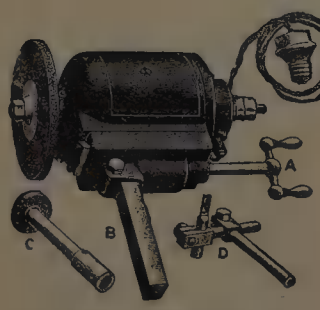
One emery wheel, $4\frac{1}{2}$ in. x $\frac{5}{16}$ in. x $\frac{1}{2}$ in.
One extension mandrel with wheel, $1\frac{1}{2}$ in. x $\frac{3}{8}$ in. x $\frac{3}{8}$ in.
One tooth rest, one wrench.

With Type B Grinder.

One emery wheel, 8 in. x $\frac{1}{2}$ in. x $\frac{5}{8}$ in.
One extension mandrel, with wheel, 2 in. x $\frac{1}{2}$ in. x $\frac{1}{2}$ in.

With Type D Grinder.

One emery wheel, 10 in. x 1 in. x $\frac{3}{4}$ in.



Hisey Portable Grinder.

Type of Grinders.	Volts.	Dimensions.	Wt. Lbs.	H. P.	Net Price.
A-110	110	$4\frac{1}{4}$ in. x $7\frac{1}{2}$ in.	16	$\frac{1}{4}$	$40.00
A-220	220				
B-110	110	6 ,, x 10 ,,	35	$\frac{1}{2}$	65.00
B-220	220				
D-110	110	7 ,, x 14 ,,	78	1	85.00
D-220	220				

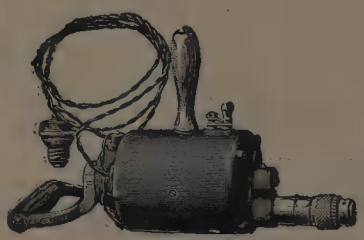
MOTORS, Power.

Hisey Portable Electric Grinders (Continued).

Alternating Style.

For alternating circuits, 104 to 220 volts, 60 or 125 cycles; dimensions, 5½ x 8 inches; weight, 22 pounds. Complete with emery wheel and extension mandrel. Type AA..... $48.00

Hisey Portable Electrical Hand or Breast Drill.



Hisey Hand Drill.

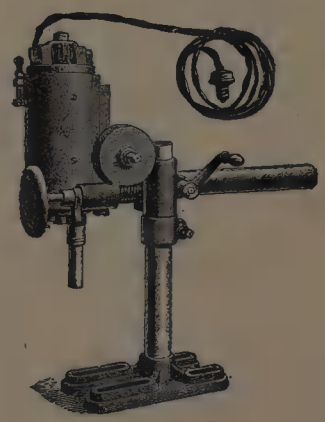
For drilling holes in metal or wood. Under perfect control at all times, with switch to start and stop motor.

Chuck spindle arranged to drill on line with base of motor for angle and corner drilling. Sent complete, ready to work, with chuck, cord, and attachment plug. Breast attachment instead of end handle furnished with any size drill, if desired, same price.

Direct Current Style.

Type.	Volts.	Dimensions Over All, including Chuck and Handle.	Wt. Lbs.	Will Hold Drills From	Net Price.
G-110 G-220	110 220	4¼ in. x 13 in.	12	0 to ¼ in.	$45.00
H-110 H-220	110 220	4¼ ,, x 15 ,,	10	0 ,, ⅜ ,,	55.00
*K-110 *K-220	110 220	5½ ,, x 16 ,,	15	0 ,, ½ ,,	72.00

*Two Speeds.



Hisey Radial Drill.

Alternating Current Style.

Capacity, 0 to ⅜ inch; weight, 19 pounds; dimensions, 5½ inches by 14 inches for alternating current circuits of 104 to 220 volts, 60 or 125 cycles.

Type HA, complete..... net, $55.00

Hisey Portable Electrical Radial Drill.

Especially suitable for light work. Ten-inch feed through hand wheel; has radius of 24 inches in any direction at any angle. Hand wheel and worm-box has a swivel adjustment from horizontal to vertical, permitting the use of drill in corners, etc. Spindle fitted with ball-bearing thrust and taper socket. Two speeds. Can be taken to any machine as any length of cord may be used. Complete for direct current only.

Type.	Volts.	Height Over All as Illustrated.	Wt.	Capacity	Net Price.
N-110 N-220	110 220	28 in.	115 lbs.	⅞ in.	$130.00
NN-110 NN-220	110 220	34 ,,	210 ,,	1¼ ,,	190.00

Furnished with detachable table, $8 extra.



No. S-1725.

G. E. Portable Electric Drills.

Consists of a motor, Jacob's chuck, tightening key, and 10 feet of attaching cord and Edison plug.

Weight, 16 lbs. Drills holes up to 2¼ in. in diameter; for drilling wood, or in cast iron, brass, and similar metals.

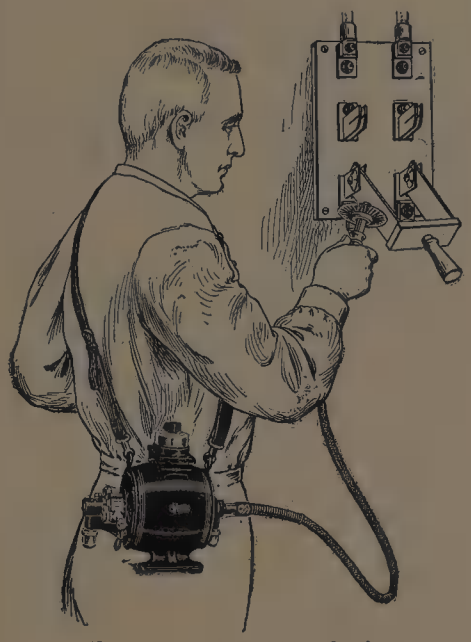
Motor is totally enclosed and thoroughly insulated, and is started and stopped by a suitable switch at the side of the motor frame.

Finish, black japan, with nickel plated trimmings; breast plate of buffed aluminum.



No. S-1727.

No. S-1725. Breast drill, 115 volts.....each, $66.00
,, S-1726. ,, ,, 230 ,, ... ,, 70.00
,, S-1727. Bench ,, 115 ,, ... ,, 72.00
,, S-1728. ,, ,, 230 ,, ... ,, 76.00



Victor Portable Polishing Outfit.



Victor Air Compressor.

MOTORS, Power (Continued).

The Victor Portable Polishing Outfit.

Consists of a motor, with flexible shaft arranged to take buffs, etc. The motor has a switch on top to enable the operator to start and stop it at his convenience. A shoulder strap is provided so that the motor may be slung over the shoulder and carried about, limited only by the length of the cord used.

Cord attaches to any ordinary lamp socket, and the motor is of $\frac{1}{3}$ horse-power, giving ample power for the work it is intended to do.

The outfit includes one buff, one brush, a supply of rouge and tripoli, two straps — one for carrying as a handle, the other for the shoulder — and a ten-foot cord complete.

It is especially useful for polishing brass work in garages, hotels, and shops, and will save its cost many times over in labor.

Prices on application.

Victor Air Compressor.

Designed to meet the demand from hospitals, sanitariums, etc. Double cylinder style, 2-inch bore, $2\frac{1}{2}$-inch stroke. Can be safely operated up to 300 R. P. M. Usually used in connection with a storage tank.

At 275 R. P. M., pumping into a 10-gallon receiver, the following results may be expected: 15 lbs. pressure in 23 seconds, 30 lbs. in 1 minute and 5 seconds, 45 lbs. in 1 minute and 50 seconds, 60 lbs. in 3 minutes and 4 seconds. May be safely operated up to 100 lbs.

No. S-1729. Price complete, as shown, with motor for 110-volt direct current..... $90.00

No. S-1730. Price complete, with motor for 220-volt direct current, 91.50

No. S-1731. Price complete, with motor for 500-volt direct current, 97.00

No. S-1732. Price complete, with motor for 104- to 110-volt, 60-cycle alternating current, and guaranteed to compress up to 40 lbs. pressure, 120.00

No. S-1733. Price complete, with motor for 104- to 110-volt, 125- to 133-cycle alternating current, and guaranteed to compress up to 40 lbs. pressure..... 120.00

No. S-1734. Price complete, with motor for 104- to 110-volt, 60-cycle alternating current, and guaranteed to compress up to 60 lbs. pressure, 145.00

No. S-1735. Price complete, with motor for 104- to 110-volt, 125- to 133-cycle alternating current, and guaranteed to compress up to 60 lbs. pressure..... 145.00

No. S-1736. Price of compressor, without motor, but with sub-base and belt tightener..... 46.00

No. S-1737. Price of compressor, without motor or sub-base..... 35.00

MOTORS, Power (Continued).



Automatic Pressure Controller.

Automatic Pressure Controller.

Automatically controls the pressure within a range of 20 lbs. by throwing a switch and starting the motor when pressure is too low and by stopping motor when desired pressure is obtained. Can be set to start at any pressure from 10 to 25 lbs. and to cut off at 20 lbs. higher.

No. S-1738. Pressure controller, when purchased alone.....each, $20.00
No. S-1739. Pressure controller, when purchased with pump, each, 15.00

MOULDINGS.

Wood Moulding with Capping.

These mouldings are made with depth of groove and thickness of back to conform with the requirements of the underwriters. Basswood is generally used.

Owing to the confusion of numbers used by the various manufacturers, we give below several of the numbers catalogued by the most prominent, together with the size of the grooves in thirty-seconds of an inch.



Two-Wire Moulding.



Three-Wire Moulding.

Two-Wire Moulding.

Catalogue Nos.	Size of Grooves.	Size of Wire Solid.	Stranded.	List per 1,000 Ft.
A-2, T-2, No. 19	$\frac{7}{32}$ inch	14 to 12		$30.00
A-4, T-4, ,, 10	$\frac{10}{32}$,,	10 ,, 8	8	36.00
A-6, T-6, ,, 15	$\frac{13}{32}$,,	8 ,, 4	6 to 5	55.00
A-8, T-8,	$\frac{20}{32}$,,	3 ,, 0	4 ,, 1	70.00
A-9, T-9, No. 18	$\frac{23}{32}$,,		0 ,, 4/0	90.00

Three-Wire Moulding.

B-2, G-2, No. 5	$\frac{7}{32}$ inch	14 to 12		$45.00
B-4, G-4, ,, 7	$\frac{10}{32}$,,	10 ,, 8	8	50.00
B-6, G-6, ,, 6	$\frac{13}{32}$,,	8 ,, 4	6 to 5	60.00
B-8, G-8,	$\frac{20}{32}$,,	3 ,, 0	4 ,, 1	100.00
B-9, G-9, No. 12	$\frac{23}{32}$,,		0 ,, 4/0	120.00

Special Mouldings.

Per 1,000 Ft.

No. 19. Oak or ash moulding.....$100.00
,, 19. Hard pine ,, ... 50.00
,, 19. Shellaced ,, (basswood) 40.00
Ground wire moulding, $\frac{7}{16}$-in. single groove 70.00

Prices on application on "Wire Grip" and other styles of mouldings made to hold the wires in place while installing.

MOUTHPIECES (see Tubes, Whistles, Telephones, etc.).

MOVER, Car (see Pusher).

MUG, Shaving.

G. E. Shaving Mug.

No.	Watts.	Volts.		
44303	150	105-125	each,	$3.50
45026	150	225-250	,,	3.50

MULE Pole Support (see S).

MUSLIN, Oiled (see Cloths, Empire).

NAILS.

Miscellaneous Wire Nails.

National Price List of November, 1901.

Per pound for 1-, 5-, and 10-pound packages.

In ordering, state if flat heads or brad heads are wanted.

¼ in.,	No. 19	$1.00	⅞ in.,	No. 10	$ .33	1¾ in.,	
	,, 20	1.25		,, 11		Nos. 4 to 13	$ .28
	,, 21	1.55		,, 12		No. 14	.29
	,, 22	1.90		,, 13	.34	,, 15	.30
⅜ in.,	,, 18	.80		,, 14	.35	,, 16	.32
	,, 19	.90		,, 15	.36	,, 17	.38
	,, 20	1.00		,, 16	.39	2 in.,	
	,, 21	1.25		,, 17	.43	Nos. 3 to 10	.27
	,, 22	1.55		,, 18	.45	No. 11	.28
½ in.,	,, 14			,, 19	.56	,, 12	.28
	,, 15	.55		,, 20	.67	,, 13	.28
	,, 16		1 in.,			,, 14	.29
	,, 17	.60	Nos. 7 to 12		.30	,, 15	.30
	,, 18	.65	No. 13		.31	,, 16	.35
	,, 19	.75	,, 14		.32	2¼ in.,	
	,, 20	.85	,, 15		.33	Nos. 3 to 10	.27
	,, 21	1.00	,, 16		.36	No. 11	.28
	,, 22	1.25	,, 17		.40	,, 12	.28
⅝ in.,	,, 12		,, 18		.43	,, 13	.28
	,, 13	.43	,, 19		.53	,, 14	.29
	,, 14		,, 20		.64	2½ in.	
	,, 15	.45	1⅛ in.,			Nos. 3 to 10	.26
	,, 16	.50	Nos. 7 to 12		.30	No. 11	.27
	,, 17	.52	No. 13		.31	,, 12	.27
	,, 18	.58	,, 14		.32	,, 13	.28
	,, 19	.65	,, 15		.32	2¾ in.,	
	,, 20	.75	,, 16		.35	Nos. 3 to 10	.26
	,, 21	.85	,, 17		.40	No. 11	.27
	,, 22	1.10	,, 18		.43	,, 12	.27
¾ in.,	,, 10		,, 19		.53	3 in.,	
	,, 11	.36	1¼ and 1⅜ in.,			Nos. 3 to 10	.25
	,, 12		Nos. 6 to 12		.29	No. 11	.26
	,, 13	.38	No. 13		.30	,, 12	.27
	,, 14	.38	,, 14		.31	3¼ in.,	
	,, 15	.42	,, 15		.32	Nos. 3 to 10	.25
	,, 16	.43	,, 16		.34	No. 11	.26
	,, 17	.46	,, 17		.39	,, 12	.27
	,, 18	.52	1½ and 1⅝ in.,			3½ in.,	
	,, 19	.60	Nos. 4 to 13		.29	Nos. 3 to 10	.25
	,, 20	.70	No. 14		.30	No. 11	.26
	,, 21	.85	,, 15		.31	4 in.,	
⅞ in.,	,, 8		,, 16		.33	Nos. 3 to 10	.25
	,, 9	.33	,, 17		.38	No. 11	.26



Nail.

List of Extras — Subject to Discount.

Add to list 4 cents per pound for ½-pound paper boxes.

,, 8 ,, ,, ,, ¼ ,, ,,

,, 2 ,, ,, ,, barbing.

,, 2 ,, ,, ,, annealing.

,, 2 ,, for cone heads, special heads, and headless.

,, 2 ,, ,, needle points and special points.

For nails combining several specialties, add as above for each.

For sizes not appearing on the list, use the list prices for the desired gauge in the nearest shorter length.

Nails heavier than listed, at special net prices, according to quantity.

Tinned or galvanized nails at special prices.

Rebates from List Prices.

Rebate for 25- and 50-pound boxes, 1 cent per pound.

,, ,, nails in 100-pound kegs, 2 cents per pound.



No. 310.



No. 320.



No. 330.



No. 317. No. 333. No. 334.



No. 649. No. 652. No. 658.



Chase Nipple.

NAIL Heads (see Washers, leather).

NAME Plates (see Plates).

NECKS, Goose (see Fixtures, street).

NECKS, Swan (see Fixtures, electric and gas).

NETS, Globe.

Wire Globe Nets
(see Guards, wire).

For arc lamp globes, etc., for use in places where underwriters require globes to be protected. Made of steel wires, tinned. In ordering specify whether for open or closed bottom globes, also size of openings and style number where possible.

Outer Globe Nets.

No. 310. 12-inch nets, coarse, 25 wire, per doz., $4.00
,, 312. 12 ,, ,, fine, 35 ,, ,, 8.00
,, 314. 14 ,, ,, coarse, 25 ,, ,, 5.00
,, 316. 14 ,, ,, fine, 35 ,, ,, 10.00

Inner Globe Nets.

No. 320. Coarse nets, 28 wire ..... per doz., $2.50
,, 322. Fine ,, 35 ,, ... ,, 3.75

Meridian Lamp Nets.

No. 330....4-inch lamp nets.....per doz., $2.50
,, 332....5 ,, ,, ,, ... ,, 2.50
,, 334....6 ,, ,, ,, ... ,, 3.00
,, 336....8 ,, ,, ,, ... ,, 3.50

NEWELS.

Electric Newels.

No. 317. Electric newel; height, 26 inches; without socket, shade holder, or globe..... $3.00
Wired, with key socket and holder, but without globe..... 6.60
No. 333. Electric newel; height, 30 inches; base, 6 inches; without socket, holder, or globe..... 6.00
Wired, with key socket and holder, but without globe..... 6.60
No. 334. Three-light electric newel; height, 26 inches; spread, 14 inches; without sockets, shades, or holders, 6.00
Wired, with key sockets and holders, but without shades..... 7.80
No. 649. G. & K. electric newel, wired; complete except globe and bulb; height to burner, 22 inches; Turinese or Flemish bronze finish.... 17.50
Stand only..... 15.00
No. 652. G. & K. electric newel, wired; complete except globe and bulb; height to burner, 22 inches; Turinese or Flemish bronze finish... 20.00
Stand only..... 17.50
No. 658. G. & K. electric newel, wired; complete with 110-volt lamps, sockets, 6 feet cord, and detachable attachment plug; height, 26 inches; finish, Turinese or Flemish bronze, 26.25

NIPPLES (see also Bushings, and Fixtures, electric and gas).

Chase Nipples.

The Chase nipple is made of malleable iron and finished in enamel. It allows more working room in the box than any other form of bushing made.

Standard gas pipe sizes.

No. S-1740.... ½-inch nipples.....per 100, $8.00
,, S-1741.... ¾ ,, ,, ... ,, 12.00
,, S-1742....1 ,, ,, ... ,, 15.00
,, S-1743....1¼ ,, ,, ... ,, 18.00
,, S-1744....1½ ,, ,, ... ,, 20.00
,, S-1745....2 ,, ,, ... ,, 30.00
,, S-1746....2½ ,, ,, ... ,, 50.00

NIPPLES, Fixture (see "electric fittings" under Fixtures).

NIPPERS (see Pliers, Clippers, etc.).

NORBITT Sockets (see S).

NOZZLE, Secret (see Fixtures, fittings).

NURSERY Milk Warmer (see W).

NUTS, Lock.



Lock Nut.

Lock Nuts.

		Std. Pkg.		
No. S-1747....	½ in.	5000.....	per 100,	$1.00
,, S-1748....	¾ ,,	5000.....	,,	1.50
,, S-1749....1	,,	100.....	,,	4.00
,, S-1750....1¼	,,	100.....	,,	6.50
,, S-1751....1½	,,	50.....	,,	8.00
,, S-1752....2	,,	50.....	,,	10.00
,, S-1753....2½	,,	25.....	,,	15.00
,, S-1754....3	,,	25.....	,,	30.00

OAK Brackets (see B).

OAK Pins (see P).

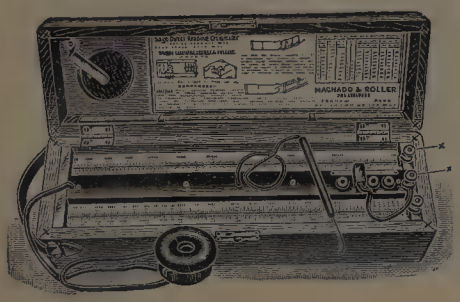
OFFICE Cable (see C).

OFFICE Wire (see W).

OHMMETERS.

Sage Direct Reading Ohmmeters, Standard Type.

Extremely simple to operate; reads directly in ohms without any computation. Scales are 30 inches long and can be read very closely. With each instrument there is supplied a pair of loose scales, equally divided, which may be dropped into place over the regular scales when locating crosses and grounds on lines, and which show directly the distance of the point of trouble from one or the other binding-post of the instrument. The batteries necessary for the operation of the ohmmeter are in a separate compartment in the base of the instrument and may be readily removed and replaced. All instruments are multi-scale, the numerals for the different scales being printed in different colors, and the receptacles into which the plug is shifted to throw in the successive scales are labelled with the names of these colors so as to avoid any chance of confusion. Directions for using the instrument for measuring resistance, for locating crosses and grounds on a line, together with diagrams of connections and wire tables are all given on a card permanently secured inside of the cover. Size, about 17 x 5 x 5 inches. Weight, about 10½ pounds.



Sage Ohmmeter.

No. 301. Four scales, ranges 0 to 10, 100, 1,000 and 200,000 ohms respectively..... $45.00

No. 302. Four scales, ranges 0 to 10, 100, 1,000 and 2,000,000 ohms respectively..... 50.00

Leather carrying case (to order), net, 5.50

Sage Direct Reading Ohmmeters, Special Type.

The special type ohmmeters are similar to the standard pattern described on the preceding page, but contain in addition to the equipment in the latter, a sensitive d'Arsonval galvanometer and an induction coil, together with appropriate switches for throwing these auxiliaries into and out of circuit. The galvanometer is valuable in that it enables the use of the instrument in locations where there is too much noise to permit of the employment of the telephone receiver, and it is, incidentally, more sensitive to direct current than the latter. The induction coil is convenient, as alternating current is



Sage Special Ohmmeter.

OHMMETERS.

Sage Direct Reading Ohmmeters, Special Type

(Continued).

obtainable from its secondary windings, under which circumstances it converts the ohmmeter into a Kohlrauch bridge, which may be used for measuring the resistance of electrolytes and the comparisons of inductances and capacities.

The apparatus is self-contained and complete in all particulars. Each instrument is accompanied with full directions for making the various tests.

Size, 17 x 5 x 5 inches. Weight, about 12 pounds.

No. 304. Four scales, ranges 0 to 10, 100, 1,000, and 200,000 ohms respectively..... $60.00

No. 306. Four scales, ranges 0 to 10, 100, 1,000, and 2,000,000 ohms respectively..... 65.00

Leather carrying case (to order), net..... 5.50

Weston Portable Ohmmeters, Direct Current, Model 1.

This instrument is of the same general appearance as the portable direct current voltmeter, the contact key being used for changing from lower to upper scale. By using a constant potential, resistance measurements may be made with it, and the indications of the pointer read directly in ohms. These instruments are particularly useful for measuring incandescent lamp filaments.

They are regularly supplied in two types, one for use with a constant potential of two volts and the other for use with a constant potential of four volts.

	Scale in Ohms.	Values in Ohms per Division.	Voltage Required.	Price.
No. 1...	0 to 50 / 50 ,, 100	1	2	$60.00
No. 2...	0 to 100 / 100 ,, 200	2	4	60.00
No. 3...	0 to 300 / 300 ,, 600	5	4	65.00
No. 4...	0 to 400 / 400 ,, 800	5	4	65.00
No. 5...	0 to 500 / 500 ,, 1000	5	4	65.00

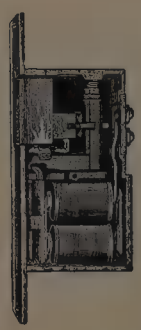
OIL Filter (see F).

OIL Paper (see Paper and Cloths).

OILS.

We are prepared to furnish all grades of oils for dynamos, engines, and automobiles. Prices on application.





Schneider Door Opener.

OLIVETTE Box (see Lamps, arc).

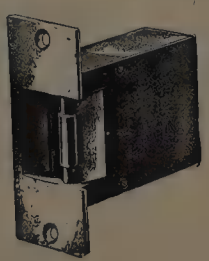
OMNIGRAPHS (see Instruments, telegraph).

OPENERS (see Locks).

Schneider Door Opener.

Mortise pattern, positive action, works very easily on two cells of battery and not over four cells on longest lines, and heavy doors.

No. 3792. Door opener, with push-out spring....each, $4.00



Eco Door Opener.

The Eco Door Opener (Victor).

Requires only a straight mortise, as the side does not project. Entirely encased to protect the mechanism from dust and insects. Can be used right or left hand.

The patented anti-friction roller enables this door opener to be used for very heavy doors with small battery power. Each opener tested under a heavy pressure.

Width of nosing, 1¼ inches.

No. 154. Eco door opener, with push-out spring..each, $2.50



Rim Door Opener.

New Edwards Rim Door Opener.

For use with surface or rim locks on thin doors, iron gates, etc. Roller style; japanned iron case; each opener tested under heavy pressure.

No. 152. Rim door opener.....each, $3.10

OPENERS (Continued).



Reliance Door Opener. Mueller Door Opener.

Reliance, Jr., Door Opener.

A high grade, machine-made opener, interchangeable parts; tested under pressure; will operate with one cell of battery.

Dimensions: face, 5⅞ x 1¼ inches; case, 4 x 2¼ inches; thickness of case, 1 inch; suitable for either right- or left-hand doors.

No. H-1754. Reliance, Jr., door opener.....each, $2.70

Mueller Door Opener.

Length, 4¾ inches; depth, 2 inches; width, 1¼ inches; face plate, 1⅜ x 6⅜ inches. Similar in appearance to the Schneider opener.

No. S-1755. Mueller door opener.....each, $2.30

ORCHESTRA Lamp (see Lamps, portable).

ORGAN Regulators (see Rheostats).

ORNAMENTAL Polestep (see Steps).

OSGOOD Connector Insulator (see I).

OUTFITS, see following headings:

Outfits, Battery Fan.
,, Call Bell.
,, Clock.
,, Motor (see Motors).
,, Polishing (see Motors).
,, Telegraph.
,, Thawing.
,, Tree.



No. 50 Imperial Outfit.

OUTFITS, Battery Fan.

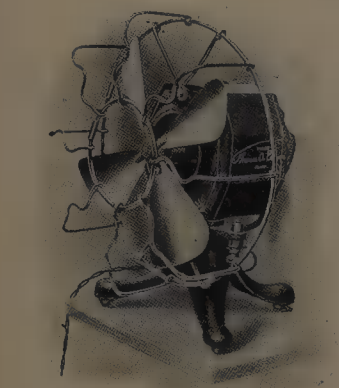
Imperial Battery Fan Outfits.

Consists of one Imperial fan motor, with 10-inch polished brass fan and guard; motor wound to 6 volts, swivel and trunnion frame, with switch on base; enameled finish; one battery box 8¼ inches high, 11½ inches wide, 14¼ inches long, with cover, 20 cells of Columbia dry battery, with flexible cord connectors, etc., ready for use.

This outfit will run the fan at approximately 1,200 revolutions per minute, and with average running will last 150 hours before battery needs renewing.

No. 50. Complete outfit..... $25.00
,, 50F. Fan motor only..... 16.50
,, 50B. Box only..... 2.00

(For new batteries, see Columbia battery No. 6, under Batteries, dry.)





Edison Fan Outfit.

Edison Battery Fan Outfits.

7-inch Outfit.

Consists of iron clad motor, with 7-inch fan and guard, battery cords, and three Edison primary Type S cells in polished oak box 18¾ inches long, 8 inches wide, 15 inches deep. Fan is noiseless and has self-oiling bearings. This outfit will run the motor 150 hours without renewal of battery.

No. S-1756. Edison 7-inch fan outfit complete..... $19.00

9-inch Outfit.

Consists of Edison battery motor, with 9-inch fan and guard, battery cords, and four Edison primary cells, Type S, in polished oak box 25 inches long, 8 inches wide, 15 inches high.

The motor, with fan, occupies a space 10 x 12 inches. It is noiseless and very efficient and will run 150 hours without renewal of the battery. Ball-bearing motor.

No. S-1757. Edison 9-inch fan outfit complete..... $27.50

NOTE. — For either of the above Edison fans alone see "Fans, battery." For the Edison primary batteries alone see "Batteries, wet."



Call-Bell Outfit.



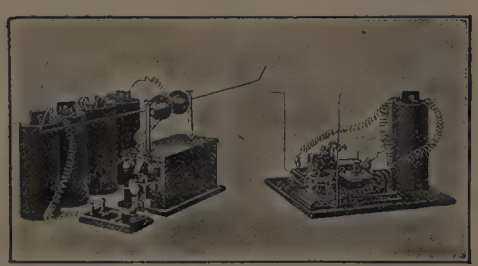
No. 1748.



No. 1750.



No. 1758.



Wireless Telegraph Outfit.

OUTFITS, Call-Bell.

Electric Call-Bell Outfit

Consists of one iron box 2½-inch bell, one cell dry battery, one wooden push-button, 50 feet of insulated wire, staples, and instructions, enabling one to set up the outfit.

Packed in a strong strawboard box, 3½ x 7 x 9 inches. Weight, 5 pounds.

No. 1762. Call-bell outfit complete..each, $1.50

OUTFITS, Clock.

Electric Alarm Clock.

The clock is set in the usual manner to ring at a certain hour. When the time arrives an electrical contact is made inside of the clock which short-circuits the two binding-posts which are at other times insulated from one another.

By connecting the clock in an electrical circuit with the necessary battery, bells, etc., it may be made to ring an alarm, operate dampers, etc.

No. 1748. Clock, with connections through binding-posts.....each, $2.25

No. 1749. Clock, with connections through legs.....each, 2.25

Electric Alarm-Clock Outfit

Consists of one of the above clocks mounted on a finely-finished wood case, with a 3-inch monitor bell. The case contains a cell of dry battery which with ordinary service will last for a year.

The legs of the clock set into small receptacles on the case, and the connections are made through them. Removing the clock opens the circuit and stops bell from ringing.

No. 1750. Complete.....each, $5.00

Another style consists of a similar clock fastened securely to the center of case on top, with a bell on the back of case and a small nickel-plated switch at the end.

No. 1758. Early Risers outfit complete, each, $4.00

OUTFITS, Motor (see Motors).

OUTFITS, Polishing (see Motors).

OUTFITS, Telegraph, Wireless.

The Telimco Wireless Telegraph Outfit.

Manufactured in quantity to meet the demand for a low-priced outfit that will really give satisfaction.

It is more than a toy, as it will send messages more than a quarter of a mile.

For distances over quarter of a mile a pole 10 or 15 feet high will have to be erected with an aërial wire projecting at least a foot at the top. Weight complete, boxed, 17 pounds.

The outfit consists of

No. S-1768. One 1-inch special high tension spark coil enclosed in polished hardwood box, with automatic vibrator, posts, and trimmings well nickeled; size, 7 x 4½ x 4 inches..... $7.50

(*Continued on next page.*)

OUTFITS, Telegraph, Wireless.

The Telimco Wireless Telegraph Outfit
(Continued).

No. S-1769. One coherer and decoherer and sounder combined, with nickel-plated posts and trimmings, all mounted on polished base, and with two receiving wires..... $1.60

No. S-1770. One 50-ohm sensitive relay, brass trimmings, bases polished wood and iron..... 2.50

No. S-1771. Two polished brass jump spark-balls, and two sender wires..... 1.75

No. S-1772. One strap key, nickel trimmings..... .40

Four extra strong dry cells, 2½ x 6 inches. Three for sending and one for receiving station. (See Batteries, dry.)

All necessary wiring.

Complete outfit..... 13.50



Thawing Outfit.

OUTFITS, Thawing.

The American Thawing Outfit

Consists of a specially adapted transformer for thawing out frozen water pipes in winter. Can be used on either 60 or 133 cycles and on circuits of approximately 1,000 or 2,000 volts or 25 per cent above or below these voltages.

Connections are interchangeable. For use in thawing operations they should be for 50 volts, and the outfit is shipped connected this way. A choke coil is provided to govern the flow of current.

Complete, ready for use, except cables and switches or cut-outs.

	Capacity in Kilowatts.	Maximum Current for 30 Minutes.	List Price.
No. S-1758.....	5	175 amps.	$180.00
,, S-1759.....	10	325 ,, ...	285.00
,, S-1760.....	15	475 ,, ...	400.00
,, S-1761.....	20	600 ,, ...	525.00
,, S-1762.....	30	900 ,, ...	700.00

The following table is given as a general guide and is taken from data which has appeared in the various publications and periodicals on this subject:

Size Pipe.	Length.	Volts.	Amps.	Time Required to Thaw.
¾ in.	100	50	140	9 min.
¾ ,,	30	50	200	6 ,,
1 ,,	200	50	300	30 ,,
4 ,,	800	50	300	3 hrs.



Christmas Tree Outfit.

OUTFITS, Tree.

Christmas Tree Outfit

Consists of festoons of small series lamps of about 1 candle-power each, arranged eight in series for burning on 110-volt circuits, either alternating or direct current.

They are furnished wired and connected complete with Hubbell attachment plug, so that

(*Continued on next page.*)

OUTFITS, Tree.

Christmas Tree Outfit (Continued).

they can be instantly draped over a tree. Extra lamps are furnished, one for each series of eight.

The junction-box used at the point of connection of the festoons is so arranged that additional festoons may be added.

No. S-1763	8 light outfits	each,	$5.00
,, S-1764	16 ,, ,,	,,	8.50
,, S-1765	24 ,, ,,	,,	12.00
,, S-1766	32 ,, ,,	,,	15.00
Extra festoons of eight sockets and lamps		,,	4.00



No. 1605.

Battery Tree Outfit

Consists of eight small battery lamps, 3½-volt, about ½ candle-power each, complete with cord and sockets, wired ready to connect to any 3½-volt battery. Will operate successfully on any good dry battery if used for short intervals only.

No. S-1767. Complete without battery $4.50

OUTLET Box (see Box).

OUTLET Tubes (see T).

OUTRIGGER, Palace (see Fixtures, pole and wall).

OUTRIGGER, Scroll Pulleyed (see Fixtures, pole and wall).

OUTRIGGERS, Cutter's (see Fixtures, pole and wall).

OVENS.

Simplex Electric Ovens.

The perfect results that are easily obtained with the electric oven are due to the arrangement of heat supply, which permits the temperature of the walls of the oven to be independently changed at will, and any one can with certainty reproduce results found by experience to be the best. No heat escapes to affect the temperature of the room. In common with all electric heating devices, it is independent of all else, and may be placed where most convenient, and at a height to avoid the necessity of stooping to inspect its contents.



No. 1608.

	Watts.	Price.
No. 1605. Suitable for family of two or three. Made of stamped steel, cast-iron base, and is light and portable. Weighs about 30 lbs. Inside dimensions are 12 by 12 by 14 in. high. Has double walls with asbestos between. Arranged for three heats with plug switch for regulating	1200	$20.00
No. 1606. This oven is large enough for all ordinary domestic requirements. It is of stamped steel, with cast-iron base. Has double walls completely filled with asbestos. Weighs 40 lbs. Inside dimensions, 12 by 12 by 19 in. Has regulating plug switch for controlling the temperature	1400	25.00

	Watts Min.	Watts Max.	Each.
No. 1608. Oven made of Russia cast iron; frame black japan finish; trimmings nickel plated. Inside dimensions, 12¾ by 14¾ by 19 in.; weight, 77 lbs. Arranged for three divisions of heat, and supplied with cord; no plug	500	1500	$40.00
No. 1609. Same as 1608, with thermometer	500	1500	45.00



No. 40446.

G. E. Ovens.

Cartridge Unit Type.

No. 40446.	Three heat,	1500–500 watts,	95–105 volts	each,	$50.00
,, 40447.	,,	1500–500 ,,	106–115 ,,	,,	50.00
,, 40448.	,,	1500–500 ,,	116–125 ,,	,,	50.00
,, 43493.	,,	1500–500 ,,	200–225 ,,	,,	54.00
,, 43494.	,,	1500–500 ,,	226–250 ,,	,,	54.00

PADS, Climber (see Climbers).

PADS, Heating.

Simplex Electric Heating Pads.

A vast improvement over the old hot-water bag. It is covered with eiderdown, is very light and flexible and is kept at a constant temperature at will. Both the outer cover and the inner covering of muslin may be removed and cleansed, keeping the whole in a perfectly sanitary condition.

The cost of maintenance is very small, the smaller sizes taking the same current as one incandescent lamp.

State voltage and kind of lamp socket on all orders.



No. 681.

	Watts.	Price.
No. 680. 12 by 15 in.; one heat with switch; 10 ft. cord and plug	50	$6.00
No. 681. 12 by 15 in.; one heat; 10 ft. cord and plug; no switch	50	5.00
No. 682. 12 by 15 in.; three heats with switch; cord and plug	50	6.50
No. 683. 15 by 24 in.; one heat with switch; cord and plug	100	10.00
No. 684. 15 by 24 in.; three heats with switch; cord and plug	100	12.00

G. E. Electric Heating Pads.

The pad is made of fine resistance wire woven into flexible asbestos carefully insulated and covered with felt. With the regular style, a washable muslin slip is furnished; in the special waterproof style, the covering is rubber cloth. The pad is 11 inches by 15 inches by ½ inch thick, and weighs only 11 ounces.

Each pad is equipped with a thermostat which automatically stops the current when the interior reaches 220 degrees Fahr.

The temperature is regulated by a three-point indicating switch, which may be adjusted to give low, medium or high heat. Each pad is furnished with 15 feet of cord and a suitable plug for attaching to any Edison lamp socket.

No. 40800.....55 watts, 110 volts..... $12.50

PADLOCK, Pole (see Locks).

PAGODAS (see Shades).

PAILS.



Sand Pail.

Dover Galvanized Sand Pails.

Ears and bail inside leaving no projection on the outside of pail. Made in two weights, regular and special extra heavy. The latter is made of heavy steel, with heavy steel hoop riveted on bottom. Galvanized after being made.

No. S-1773.	10-quart, regular, 11 x 9	per doz.,	$4.00
,, S-1774.	12 ,, ,, 11 x 10	,,	4.50
,, S-1775.	14 ,, ,, 12 x 10½	,,	5.00
,, S-1776.	12 ,, special, extra heavy, 11¼ x 10½	,,	7.50
,, S-1777.	14 ,, ,, ,, ,, 11⅞ x 10¾	,,	8.00



Extra Heavy Sand Pail.

Dover Galvanized Fire Pails.

These pails have round bottoms so that they are useless for ordinary work and will, therefore, always be replaced on stands or hooks ready for immediate use. Painting or stenciling and covers extra.

No. S-1778. 12-quart galvanized fire pails, round bottom, per doz., $5.00

PAINT (see Armalac, Enamelac, Varnish, Compound, etc.).

Pole Paint, No. S-1779.

A durable, dark olive green paint for poles, power-houses, etc., in barrels.....per gal., $1.30

Ditto, better grade..... ,, 1.70

PAINT (Continued).

S. P. C. Flexible Iron Paint, No. H-1779.

A quick drying glossy insulating black for all metal work exposed to the weather.

In barrels of about 50 gallons	per gal.,	$ .75
,, ½ barrels of about 30 gallons	,,	.80
,, 10-gallon packages	,,	.90
,, 5 ,, ,,	,,	.95
,, 1 ,, cans, 6 in a case	,,	1.00
,, ½ ,, ,, 10 ,,	,,	1.10
,, 1 quart cans, 10 in a case	,,	1.20

Fireproof Paint No. S-1780.

A white asbestos paint for fireproofing purposes ..... per gal., $1.20

PALMS.

Motormen's Palms, No. S-1781.

A leather protecting palm for the hand, for use by motormen of electric cars, per doz., $5.50

PANS, Enameled Food (see Dish, electric chafing).

PANS, Sauce.

Sauce or Sauté Pans (see Stoves).

Heavy copper, nickel plated, rosewood handles in cast brass sockets, with through bolt — cannot get loose or break off.



Sauté Pans.

	Price.
No. 0750. One and one-half pts. Sauce or sauté pan. Fits stoves Nos. 1701 and 1731 ..... each,	$2.00
No. 0751. Three pts. Same. Fits stoves Nos. 1702 and 1732 ..... each,	2.75
No. 0752. Two qts. Same. Fits stoves Nos. 1703 and 1733 ..... each,	3.00
No. 0753. Five qts. Same. Fits stoves Nos. 1704 and 1734 ..... each,	3.50
No. 0754. Two gals. Same. Fits stoves Nos. 1705 and 1735 ..... each,	4.50

G. E. Frying Pans.

Made of sheet steel and have heating elements of the quartz-enamel type.



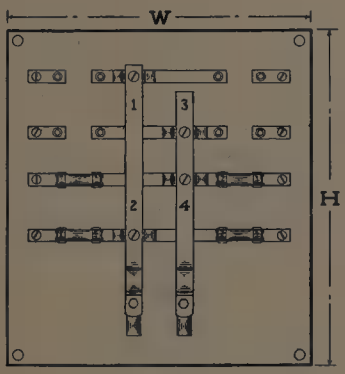
Frying Pans.

No.	Watts.	Volts.	Inches.	Each.
42672	500	95–105	5	$10.50
42673	500	106–115	5	10.50
39521	500	116–125	5	10.50
42394	500	200–225	5	10.50
42395	500	226–250	5	10.50
42674	220–575	95–105	7	12.00
42675	220–575	106–115	7	12.00
39522	220–575	116–125	7	12.00
42396	220–575	200–225	7	12.00
42397	220–575	226–250	7	12.00
42676	350–675–1300	95–105	10	20.00
42677	350–675–1300	106–115	10	20.00
39745	350–675–1300	116–125	10	20.00
43281	350–675–1300	200–225	10	20.00
43282	350–675–1300	226–250	10	20.00

PANEL Boxes (see Cabinets).

PANELS.

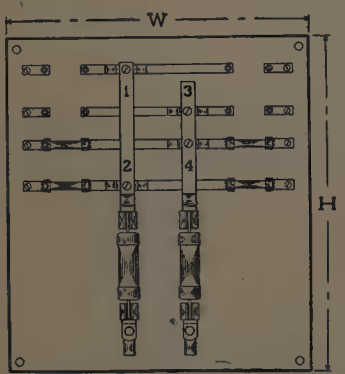
Crouse-Hinds Panels.



Panel with Main Lugs.

125 V., 2 to 2 Wire Dbl. Branch, Main Lugs, Fuse Terminal Circuits.

Enclosed Fuse Type.					*Edison Plug Fuse Type.*				
		List Prices.					List Prices.		
No. Cir.	Cat. No.	Panel.	Slate Frame.	Door Lining.	No. Cir.	Cat. No.	Panel.	Slate Frame.	Door Lining.
2	184	$4.05	$2.75	$1.00	2	5728	$4.10	$2.75	$ .75
4	185	5.90	2.90	1.00	4	5729	6.05	2.90	.85
6	186	7.80	3.15	1.25	6	5730	8.10	3.25	.90
8	187	10.05	3.40	1.35	8	5731	10.65	3.40	1.10
10	188	12.25	3.55	1.35	10	5732	12.70	3.55	1.60
12	189	14.25	3.90	1.70	12	5733	15.05	3.90	1.75
14	190	16.50	4.10	1.70	14	5734	17.70	4.45	1.75
16	191	19.25	4.45	2.25	16	5735	20.35	4.60	1.90
18	192	21.35	4.75	2.35	18	5736	22.55	4.75	1.90
20	193	24.45	4.95	2.35	20	5737	25.75	4.95	1.95
22	194	27.25	5.10	2.40	22	5738	28.65	5.45	3.05
24	195	29.45	5.25	2.40	24	5739	31.10	5.65	3.05
26	196	32.05	5.80	3.05	26	5740	33.60	5.80	3.05
28	197	34.30	5.95	3.05	28	5741	35.95	5.95	3.05
250 V., 2 to 2 Wire Dbl. Branch, Main Lugs, Fuse Terminal Circuits.									
2	198	$4.20	$2.75	$1.00	2	5742	$4.10	$2.75	$ .75
4	199	6.00	3.10	1.25	4	5743	6.15	3.10	.90
6	200	8.50	3.25	1.25	6	5744	8.45	3.25	1.10
8	201	10.55	3.60	1.60	8	5745	11.10	3.60	1.60
10	202	12.80	3.75	1.70	10	5746	13.25	4.15	1.75
12	203	15.05	4.10	2.35	12	5747	15.55	4.30	1.85
14	204	17.90	4.45	2.35	14	5748	18.10	4.45	1.90
16	205	20.85	4.80	2.40	16	5749	21.00	4.60	1.95
18	206	23.35	5.35	3.05	18	5750	23.75	5.15	3.05
20	207	26.25	5.50	3.05	20	5751	27.00	5.30	3.05
22	208	29.45	5.65	3.05	22	5752	29.60	5.45	3.05
24	209	31.75	5.80	3.05	24	5753	33.50	6.00	4.45
26	210	34.65	6.35	4.95	26	5754	36.60	6.15	4.45
28	211	37.05	6.50	4.95	28	5755	39.15	6.30	4.45
125 Volts, 2 to 2 Wire Double Branch, Main Fuse Terminals, Fuse Terminal Circuits.									
2	296	$4.90	$2.75	$1.00	2	5784	$5.05	$2.75	$ .85
4	297	6.50	3.10	1.05	4	5785	6.90	3.10	.90
6	298	8.65	3.25	1.15	6	5786	9.25	3.25	1.10
8	299	10.90	3.60	1.60	8	5787	11.70	3.60	1.60
10	300	12.85	3.95	1.60	10	5788	13.90	3.75	1.75
12	301	15.65	4.10	2.25	12	5789	14.45	4.30	1.90
14	302	18.35	4.45	2.35	14	5790	19.40	4.45	1.90
16	303	20.85	4.60	2.35	16	5791	22.10	4.60	1.95
18	304	24.05	4.75	2.40	18	5792	25.60	5.15	3.05
20	305	27.50	5.30	2.50	20	5793	28.70	5.30	3.05
22	306	29.75	5.45	3.05	22	5794	31.15	5.45	3.05
24	307	32.15	5.65	3.05	24	5795	33.60	5.65	3.05
26	308	34.35	5.80	3.05	26	5796	37.60	6.15	4.45
28	309	36.60	5.95	3.05	28	5797	39.95	6.30	4.45
250 Volts, 2 to 2 Wire Double Branch, Main Fuse Terminals, Fuse Terminal Circuits.									
2	310	$5.00	$2.75	$1.00	2	5798	$5.05	$2.75	$ .85
4	311	6.75	3.10	1.10	4	5799	7.05	3.10	.95
6	312	8.95	3.45	1.60	6	5800	9.60	3.45	1.60
8	313	11.30	3.60	1.70	8	5801	12.05	3.60	1.75
10	314	13.75	3.95	2.25	10	5802	14.35	4.15	1.85
12	315	16.80	4.30	2.35	12	5803	17.15	4.30	1.95
14	316	20.00	4.80	3.05	14	5804	20.10	4.80	3.05
16	317	22.65	5.00	3.05	16	5805	23.10	5.00	3.05
18	318	25.50	5.15	3.05	18	5806	26.25	5.15	3.05
20	319	28.65	5.30	3.05	20	5807	31.10	5.65	4.45
22	320	32.65	5.85	4.65	22	5808	33.55	5.85	4.45
24	321	34.95	6.00	4.65	24	5809	36.00	6.00	4.45
26	322	37.30	6.15	4.65	26	5810	41.95	6.55	5.10
28	323	41.40	6.70	7.00	28	5811	44.50	6.70	5.10



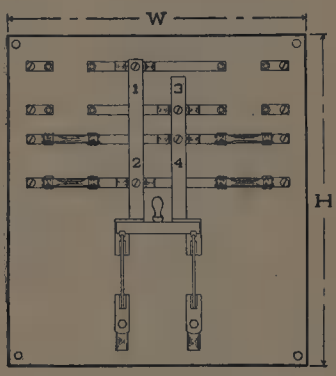
Panel with Main Fuse Terminals.

The panels as listed above are high grade in every respect. The slate is black enameled and polished, and all metal parts are made of polished copper lacquered.

Deliveries. — Any standard panel as listed above can be shipped from the factory in from two to three days after receipt of order.

PANELS.

Crouse-Hinds Panels (Continued).



Panel with Fuseless Main Switch.

125 Volts, 2 to 2 Wire Double Branch, Fuseless Main Switch, Fuse Terminal Branches.

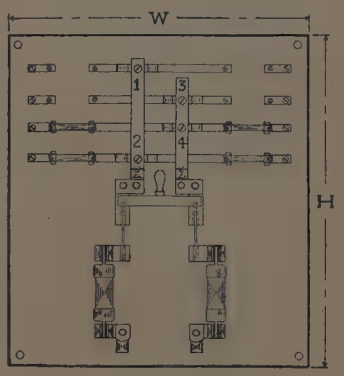
Enclosed Fuse Type.					*Edison Plug Fuse Type.*				
No. Cir.	Cat. No.	List Prices. Panel.	Slate Frame.	Door Lining.	No. Cir.	Cat. No.	List Prices. Panel.	Slate Frame.	Door Lining.
2	408	$7.35	$2.95	$1.25	2	5840	$7.15	$2.75	$ .85
4	409	9.00	3.10	1.25	4	5841	9.15	3.10	.95
6	410	11.30	3.25	1.25	6	5842	11.80	3.45	1.60
8	411	13.55	3.60	1.60	8	5843	14.10	3.60	1.75
10	412	15.55	3.75	1.70	10	5844	16.35	3.95	1.75
12	413	19.95	4.30	2.35	12	5845	20.40	4.30	1.95
14	414	22.45	4.45	2.35	14	5846	23.15	4.45	1.95
16	415	25.35	4.60	2.40	16	5847	25.75	5.00	3.05
18	416	29.95	5.15	2.50	18	5848	30.35	5.15	3.05
20	417	32.70	5.30	3.05	20	5849	33.20	5.30	3.05
22	418	35.50	5.45	3.05	22	5850	37.30	5.85	4.45
24	419	37.85	5.65	3.05	24	5851	39.65	6.00	4.45
26	420	40.15	5.80	3.05	26	5852	42.10	6.15	4.45
28	421	42.70	6.30	4.45	28	5853	44.45	6.30	4.45

250 Volts, 2 to 2 Wire Double Branch, Fuseless Main Switch, Fuse Terminal Branches.

2	422	$7.50	$2.95	$1.25	2	5854	$7.15	$2.95	$ .90
4	423	9.35	3.25	1.55	4	5855	9.40	3.10	1.10
6	424	11.85	3.45	1.60	6	5856	12.10	3.45	1.75
8	425	14.20	3.95	2.25	8	5857	14.45	3.95	1.85
10	426	16.45	4.15	2.35	10	5858	16.65	4.15	1.90
12	427	21.05	4.30	2.40	12	5859	21.05	4.65	3.05
14	428	24.25	4.80	3.05	14	5860	24.10	4.80	3.05
16	429	27.45	5.00	3.05	16	5861	26.75	5.00	3.05
18	430	31.45	5.15	3.05	18	5862	32.45	5.50	4.45
20	431	34.65	5.85	5.05	20	5863	35.60	5.65	4.45
22	432	37.55	6.00	5.05	22	5864	38.15	5.85	4.45
24	433	42.20	6.20	5.05	24	5865	43.40	6.35	6.40
26	434	45.45	6.70	7.00	26	5866	46.45	6.55	6.40
28	435	47.85	6.90	7.00	28	5867	49.00	6.70	6.40

125 Volts, 2 to 2 Wire Double Branch, Fused Main Switch, Fuse Terminal Circuits.

2	520	$8.65	$2.95	$1.25	2	5896	$8.85	$2.95	$ .95
4	521	10.30	3.10	1.25	4	5897	10.85	3.10	1.10
6	522	12.95	3.25	1.35	6	5898	13.85	3.45	1.75
8	523	15.45	3.60	1.70	8	5899	16.10	3.80	1.75
10	524	17.40	3.75	1.70	10	5900	18.45	3.95	1.90
12	525	22.25	4.30	2.35	12	5901	23.20	4.30	1.95
14	526	25.15	4.45	2.35	14	5902	26.30	4.80	3.05
16	527	27.25	4.60	2.40	16	5903	28.50	5.00	3.05
18	528	32.80	5.15	3.05	18	5904	33.75	5.15	3.05
20	529	35.25	5.30	3.05	20	5905	36.60	5.30	3.05
22	530	37.55	5.45	3.05	22	5906	40.50	5.85	4.45
24	531	39.90	5.65	3.05	24	5907	42.95	6.00	4.45
26	532	43.30	6.15	4.45	26	5908	45.40	6.15	4.45
28	533	45.45	6.30	4.45	28	5909	47.70	6.30	4.45



Panel with Fused Main Switch.

250 Volts, 2 to 2 Wire Double Branch, Fused Main Switch, Fuse Terminal Circuits.

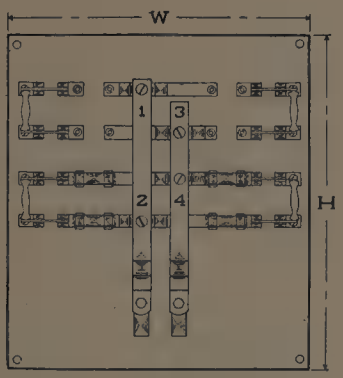
2	534	$8.85	$2.95	$1.25	2	5910	$9.00	$2.95	$1.10
4	535	10.60	3.25	1.60	4	5911	11.15	3.25	1.60
6	536	13.60	3.45	1.70	6	5912	14.20	3.60	1.85
8	537	15.90	3.95	2.35	8	5913	16.35	3.95	1.90
10	538	18.45	4.15	2.35	10	5914	18.90	4.15	1.95
12	539	23.30	4.65	3.00	12	5915	24.10	4.65	3.05
14	540	26.45	4.80	3.05	14	5916	26.75	4.80	3.05
16	541	28.80	5.00	3.05	16	5917	29.05	5.00	3.05
18	542	34.65	5.70	5.05	18	5918	35.85	5.50	4.45
20	543	37.40	5.85	5.05	20	5919	38.90	5.65	4.45
22	544	40.35	6.00	5.05	22	5920	41.35	6.85	4.45
24	545	42.65	6.20	5.05	24	5921	46.70	6.35	6.40
26	546	48.30	6.55	7.00	26	5922	49.75	6.55	6.40
28	547	50.60	6.70	7.00	28	5923	52.25	6.70	6.40

The panels as listed above are high grade in every respect. The slate is black enameled and polished, and all metal parts are made of polished copper lacquered.

Deliveries. — Any standard panel as listed above can be shipped from the factory in from two to three days after receipt of order.

PANELS.

Crouse-Hinds Panels (Continued).



Panel with Main Lugs and Circuit Switches.

125 Volts, 2 to 2 Wire Double Branch, Main Lugs and Circuit Switches.

Enclosed Fuse Type.					*Edison Plug Fuse Type.*				
		List Prices.					List Prices.		
No. Cir.	Cat. No.	Panel.	Slate Frame.	Door Lining.	No. Cir.	Cat. No.	Panel.	Slate Frame.	Door Lining.
2	632	$5.45	$2.75	$ .90	2	5952	$5.40	$2.75	$1.00
4	633	8.45	3.10	1.05	4	5953	8.80	3.10	1.25
6	634	11.90	3.25	1.40	6	5954	12.30	3.25	1.35
8	635	15.50	3.40	1.40	8	5955	16.10	3.60	1.45
10	636	18.85	3.75	1.50	10	5956	19.60	3.75	1.70
12	637	22.20	3.90	1.60	12	5957	23.30	4.10	1.75
14	638	26.10	4.25	1.90	14	5958	27.35	4.45	1.95
16	639	29.80	4.60	2.00	16	5959	31.55	4.60	2.60
18	640	33.35	4.75	2.20	18	5960	35.20	4.95	2.60
20	641	37.55	4.95	2.70	20	5961	39.75	5.10	2.60
22	642	41.90	5.10	2.70	22	5962	44.60	5.65	3.70
24	643	45.45	5.65	2.70	24	5963	48.75	5.80	4.30
26	644	50.30	5.80	3.70	26	5964	52.65	5.95	4.30
28	645	53.80	5.95	4.30	28	5965	56.35	6.15	4.30

250 V., 2 to 2 Wire Double Branch, Main Lugs and Circuit Switches.

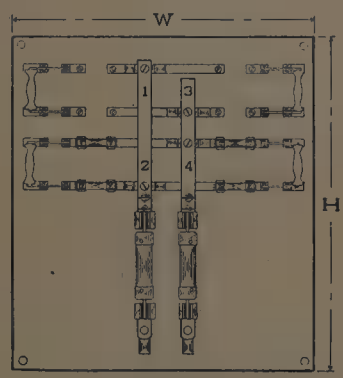
2	646	$5.65	$2.95	$1.00	2	5966	$5.75	$2.95	$1.15
4	647	8.90	3.10	1.55	4	5967	9.35	3.45	1.45
6	648	12.75	3.45	1.55	6	5968	13.15	3.60	1.85
8	649	16.25	3.80	2.70	8	5969	17.05	3.95	2.20
10	650	19.75	3.95	2.80	10	5970	20.85	4.15	2.55
12	651	23.45	4.30	2.90	12	5971	24.60	4.30	2.90
14	652	27.40	4.45	2.90	14	5972	28.80	4.80	3.30
16	653	31.70	4.80	2.95	16	5973	33.20	5.00	3.30
18	654	36.15	5.15	3.70	18	5974	37.95	5.50	4.20
20	655	40.75	5.30	4.30	20	5975	42.45	5.70	5.10
22	656	44.40	5.65	4.30	22	5976	46.30	5.85	5.10
24	657	48.15	5.80	4.30	24	5977	52.45	6.35	6.10
26	658	53.70	6.15	5.60	26	5978	56.95	6.55	6.10
28	659	57.45	6.30	5.75	28	5979	60.90	6.70	6.10

125 V., 2 to 2 Wire Double Branch, Main Fuse Terminals and Circuit Switches.

2	744	$6.45	$2.95	$1.00	2	6008	$6.50	$2.95	$1.25
4	745	9.55	3.10	1.10	4	6009	9.85	3.10	1.35
6	746	13.00	3.45	1.40	6	6010	13.60	3.45	1.45
8	747	16.70	3.60	1.70	8	6011	17.45	3.60	1.75
10	748	20.05	3.75	1.95	10	6012	20.90	3.95	1.75
12	749	23.95	4.30	2.10	12	6013	25.35	4.30	2.60
14	750	28.00	4.45	2.60	14	6014	29.35	4.65	2.60
16	751	31.80	4.60	2.70	16	6015	33.55	4.80	2.60
18	752	36.25	4.95	2.70	18	6016	38.90	5.15	3.75
20	753	41.25	5.30	3.70	20	6017	43.90	5.30	4.30
22	754	45.55	5.45	4.30	22	6018	47.70	5.45	4.30
24	755	49.15	5.65	4.30	24	6019	51.45	5.80	4.30
26	756	52.80	5.80	4.30	26	6020	57.25	6.35	5.60
28	757	56.35	6.15	4.30	28	6021	60.95	6.50	5.60

250 V., 2 to 2 Wire Double Branch, Main Fuse Terminals and Circuit Switches.

2	758	$6.70	$2.95	$1.25	2	6022	$6.75	$3.10	$1.20
4	759	10.00	3.25	1.55	4	6023	10.55	3.45	1.45
6	760	13.70	3.45	1.65	6	6024	14.30	3.60	1.85
8	761	17.40	3.80	2.00	8	6025	18.25	3.95	2.25
10	762	21.00	4.15	2.80	10	6026	20.10	4.15	2.90
12	763	25.30	4.45	2.90	12	6027	26.70	4.65	3.30
14	764	29.90	4.80	3.45	14	6028	32.00	4.80	4.15
16	765	34.15	5.00	4.30	16	6029	35.90	5.35	5.10
18	766	38.80	5.35	4.30	18	6030	41.10	5.50	5.10
20	767	43.25	5.50	4.30	20	6031	47.45	6.05	5.50
22	768	49.40	5.85	5.55	22	6032	51.30	6.20	6.10
24	769	53.55	6.20	6.10	24	6033	55.15	6.35	6.10
26	770	57.30	6.35	6.10	26	6034	63.85	6.90	6.60
28	771	64.00	6.90	7.00	28	6035	67.80	7.05	6.60



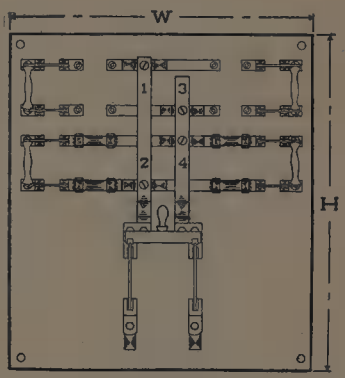
Panel with Main Fuse Terminals and Circuit Switches.

The panels as listed above are high grade in every respect. The slate is black enameled and polished, and all metal parts are made of polished copper lacquered.

Deliveries. — Any standard panel as listed above can be shipped from the factory in from two to three days after receipt of order.

PANELS.

Crouse-Hinds Panels (Continued).



Panel with Fuseless Main Switch and Fused Circuit Switches.

125 Volts, 2 to 2 Wire Double Branch, Fuseless Main Switch, Fused Circuit Switches.

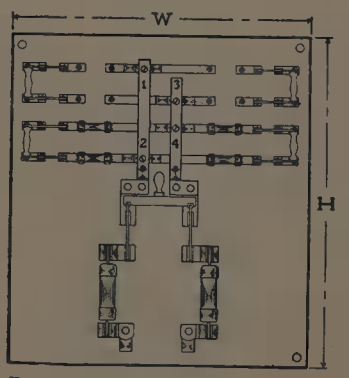
Enclosed Fuse Type.		List Prices.			*Edison Plug Fuse Type.*		List Prices.		
No. Cir.	Cat. No.	Panel.	Slate Frame.	Door Lining.	No. Cir.	Cat. No.	Panel.	Slate Frame.	Door Lining.
2	856	$8.75	$2.95	$1.35	2	6064	$8.60	$2.95	$1.25
4	857	12.00	3.10	1.40	4	6065	11.90	3.10	1.45
6	858	15.65	3.45	1.65	6	6066	16.00	3.45	1.70
8	859	19.15	3.60	1.75	8	6067	19.75	3.80	1.75
10	860	22.45	4.15	2.05	10	6068	23.35	4.15	1.95
12	861	28.05	4.30	2.60	12	6069	29.00	4.30	2.60
14	862	31.80	4.45	2.70	14	6070	33.30	4.65	2.60
16	863	35.90	4.60	2.70	16	6071	38.10	5.00	3.70
18	864	41.90	5.15	3.60	18	6072	44.20	5.15	4.30
20	865	45.95	5.30	3.75	20	6073	48.40	5.30	4.30
22	866	50.25	5.45	4.30	22	6074	52.85	6.00	5.35
24	867	53.75	5.65	4.30	24	6075	56.55	6.20	5.60
26	868	58.40	6.15	5.40	26	6076	60.40	6.35	5.60
28	869	61.95	6.30	6.15	28	6077	64.10	6.50	5.60

250 Volts, 2 to 2 Wire Double Branch, Fuseless Main Switch, Fused Circuit Switches.

2	870	$9.20	$3.10	$1.55	2	6078	$8.95	$3.10	$1.45
4	871	12.60	3.25	1.75	4	6079	12.65	3.65	1.85
6	872	16.30	3.80	2.05	6	6080	16.80	3.80	2.25
8	873	20.05	3.95	2.90	8	6081	20.75	3.95	2.90
10	874	23.50	4.15	2.90	10	6082	24.60	4.50	3.30
12	875	29.20	4.65	3.45	12	6083	31.60	4.65	4.15
14	876	33.80	4.80	4.30	14	6084	35.55	5.20	5.10
16	877	38.25	5.00	4.30	16	6085	39.50	5.35	5.10
18	878	43.55	5.50	4.70	18	6086	47.40	5.90	5.50
20	879	50.25	5.65	5.50	20	6087	51.95	6.05	6.10
22	880	54.05	5.85	5.80	22	6088	55.80	6.20	6.10
24	881	57.75	6.20	6.80	24	6089	63.25	6.75	6.60
26	882	64.75	6.70	7.00	26	6090	67.70	6.90	6.60
28	883	68.60	6.90	7.00	28	6091	71.60	7.05	6.60

125 Volts, 2 to 2 Wire Double Branch, Fused Main Switch, Fused Circuit Switches.

2	968	$10.25	$2.95	$1.35	2	6120	$10.30	$2.95	$1.45
4	969	13.25	3.10	1.40	4	6121	13.65	3.25	1.70
6	970	17.25	3.45	1.65	6	6122	17.90	3.60	1.75
8	971	20.85	3.80	1.75	8	6123	21.60	3.80	2.60
10	972	24.15	4.15	2.05	10	6124	25.30	4.15	2.60
12	973	30.45	4.30	2.60	12	6125	32.10	4.45	3.70
14	974	34.40	4.45	2.70	14	6126	36.90	4.80	3.75
16	975	37.75	4.80	2.70	16	6127	41.05	5.00	4.30
18	976	45.05	5.15	3.65	18	6128	47.50	5.15	4.30
20	977	49.40	5.30	4.30	20	6129	51.70	5.50	4.30
22	978	53.05	5.45	4.30	22	6130	57.55	6.00	5.60
24	979	56.60	5.80	4.30	24	6131	61.10	6.20	5.60
26	980	62.70	6.15	5.35	26	6132	65.05	6.35	5.60
28	981	66.30	6.30	6.10	28	6133	68.65	6.50	5.60



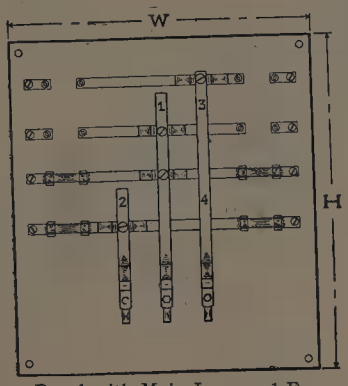
Panel with Fused Main Switch and Fused Circuit Switches.

250 Volts, 2 to 2 Wire Double Branch, Fused Main Switch. Fused Circuit Switches.

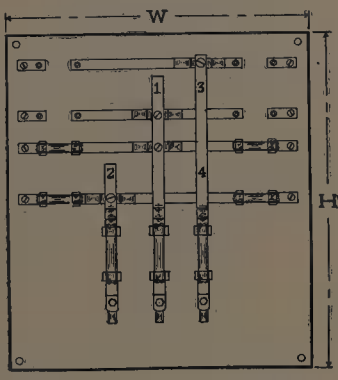
2	982	$10.75	$3.10	$1.55	2	6134	$10.80	$3.30	$1.85
4	983	13.85	3.45	1.75	4	6135	14.45	3.65	2.20
6	984	18.00	3.60	2.05	6	6136	18.90	3.80	2.90
8	985	21.55	3.95	2.90	8	6137	22.80	4.35	3.30
10	986	25.30	4.15	2.90	10	6138	26.50	4.50	3.30
12	987	32.20	4.65	3.55	12	6139	34.25	4.65	4.20
14	988	36.80	4.80	4.30	14	6140	38 35	5.20	5.10
16	989	40.10	5.15	4.30	16	6141	42.55	5.35	5.10
18	990	47.50	5.35	4.30	18	6142	50.75	5.90	6.10
20	991	52.45	5.65	5.50	20	6143	55.20	6.05	6.10
22	992	56.85	6.00	5.80	22	6144	59.25	6.60	6.10
24	993	60.50	6.20	6.10	24	6145	67.00	6.75	6.60
26	994	67.35	6.70	7.00	26	6146	71.55	6.90	6.60
28	995	71.10	6.90	7.00	28	6147	75.40	7.05	6.60

The panels as listed above are high grade in every respect. The slate is black enameled and polished, and all metal parts are made of polished copper lacquered.

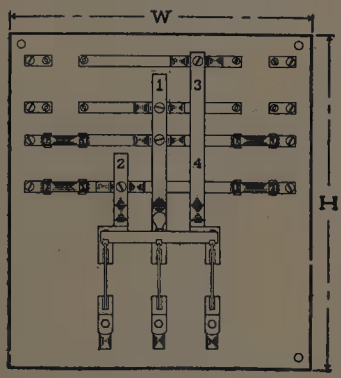
Deliveries. — Any standard panel as listed above can be shipped from the factory in from two to three days after receipt of order.



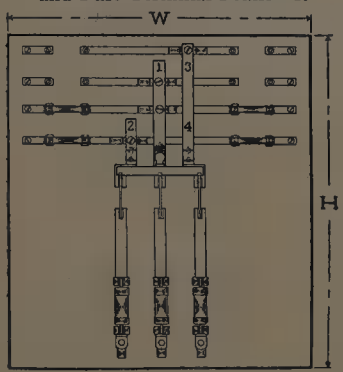
Panel with Main Lugs and Fuse Terminal Branches.



Panel with Main Fuse Terminals and Fuse Terminal Branches.



Panel with Fuseless Main Switch and Fuse Terminal Branches.



Panel with Fused Main Switch and Fuse Terminal Branches.

PANELS.

Crouse-Hinds Panels (Continued).

125 Volts, 3 to 2 Wire Double Branch, Main Lugs, Fuse Terminal Branches.

Enclosed Fuse Type.		List Prices.			*Edison Plug Fuse Type.*		List Prices.		
No. Cir.	Cat. No.	Panel.	Slate Frame.	Door Lining.	No. Cir.	Cat. No.	Panel.	Slate Frame.	Door Lining.
2	1038	$4.35	$2.90	$ .85	2	6162	$4.35	$2.75	$1.00
4	1039	6.25	3.05	.95	4	6163	6.50	2.90	1.15
6	1040	8.45	3.40	1.10	6	6164	8.70	3.05	1.25
8	1041	10.60	3.55	1.35	8	6165	11.00	3.40	1.25
10	1042	12.65	3.85	1.45	10	6166	13.25	3.55	1.70
12	1043	14.95	4.15	1.75	12	6167	15.65	3.90	1.75
14	1044	17.25	4.35	1.90	14	6168	18.25	4.10	1.85
16	1045	19.55	4.70	2.05	16	6169	21.20	4.45	2.35
18	1046	21.85	4.85	2.60	18	6170	23.65	4.75	2.35
20	1047	24.10	5.20	2.70	20	6171	26.25	4.95	2.40
22	1048	26.90	5.35	2.70	22	6172	30.20	5.45	3.05
24	1049	29.15	5.80	2.70	24	6173	32.65	5.65	3.05
26	1050	32.75	5.95	3.65	26	6174	35.10	5.80	3.05
28	1051	35.60	6.10	4.30	28	6175	37.45	5.95	3.05

125 Volts, 3 to ■ Wire Double Branch, Main Fuse Terminals, Fuse Terminal Branches.

2	1094	$6.15	$3.10	$1.05	2	6190	$6.10	$2.75	$1.15
4	1095	8.00	3.25	1.15	4	6191	8.05	2.90	1.25
6	1096	10.15	3.40	1.25	6	6192	10.45	3.25	1.25
8	1097	12.20	3.75	1.45	8	6193	12.70	3.40	1.70
10	1098	14.45	3.90	1.70	10	6194	15.05	3.75	1.75
12	1099	16.65	4.45	1.95	12	6195	17.90	3.90	1.85
14	1100	20.15	4.60	2.05	14	6196	20.35	4.25	2.35
16	1101	21.55	4.75	2.60	16	6197	23.50	4.60	2.40
18	1102	23.90	4.95	2.60	18	6198	25.90	4.75	2.40
20	1103	26.20	5.10	2.70	20	6199	28.95	5.30	3.05
22	1104	29.65	5.65	3.75	22	6200	32.85	5.45	3.05
24	1105	32.05	5.80	4.30	24	6201	35.35	5.65	3.05
26	1106	34.45	5.95	4.30	26	6202	38.40	6.15	4.45
28	1107	37.70	6.10	4.30	28	6203	41.00	6.30	4.45

125 Volts, 3 to 2 Wire Double Branch, Fuseless Main Switch, Fuse Terminal Branches.

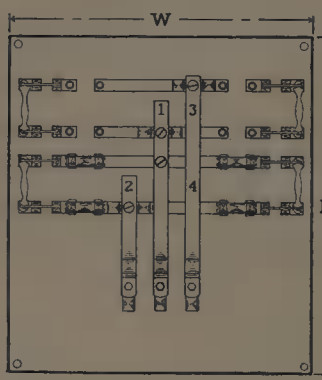
2	1150	$9.05	$3.10	$1.25	2	6218	$8.85	$2.95	$1.25
4	1151	10.95	3.25	1.40	4	6219	10.90	3.10	1.25
6	1152	13.05	3.60	1.55	6	6220	13.25	3.45	1.70
8	1153	15.15	3.75	1.70	8	6221	15.55	3.60	1.70
10	1154	17.35	3.90	1.95	10	6222	18.20	3.95	1.85
12	1155	19.85	4.45	2.50	12	6223	21.00	4.10	2.35
14	1156	22.35	4.60	2.60	14	6224	23.85	4.45	2.40
16	1157	24.95	4.75	2.60	16	6225	26.40	4.60	2.40
18	1158	27.05	4.95	2.70	18	6226	29.65	5.15	3.05
20	1159	30.25	5.45	3.70	20	6227	32.35	5.30	3.05
22	1160	35.50	5.65	4.20	22	6228	37.85	5.45	3.05
24	1161	37.75	5.80	4.30	24	6229	40.85	6.00	4.45
26	1162	40.05	5.95	4.30	26	6230	43.35	6.15	4.45
28	1163	44.20	6.50	5.60	28	6231	45.75	6.30	4.45

125 Volts, 3 to 2 Wire Double Branch, Fused Main Switch, Fuse Terminal Branches.

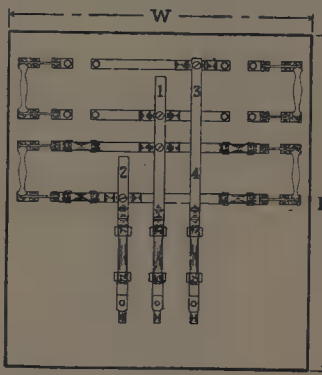
2	1206	$11.70	$3.10	$1.40	2	6246	$11.70	$2.95	$1.25
4	1207	13.60	3.45	1.40	4	6247	13.85	3.25	1.70
6	1208	15.85	3.95	1.55	6	6248	16.15	3.45	1.70
8	1209	17.85	4.15	1.80	8	6249	18.80	3.80	1.85
10	1210	20.00	4.30	1.95	10	6250	21.20	3.95	1.85
12	1211	22.85	4.45	2.50	12	6251	24.45	4.30	2.40
14	1212	25.55	4.60	2.60	14	6252	26.75	4.45	2.40
16	1213	27.70	5.15	2.70	16	6253	30.30	5.00	3.05
18	1214	30.60	5.30	3.65	18	6254	33.20	5.15	3.05
20	1215	33.40	4.45	4.30	20	6255	35.40	5.30	3.05
22	1216	40.50	6.00	5.10	22	6256	43.15	5.85	4.45
24	1217	42.75	6.15	5.10	24	6257	45.55	6.00	4.45
26	1218	45.15	6.30	5.10	26	6258	51.20	6.55	6.40
28	1219	48.30	6.65	5.10	28	6259	53.85	6.70	6.40

The panels as listed above are high grade in every respect. The slate is black enameled and polished, and all metal parts are made of polished copper lacquered.

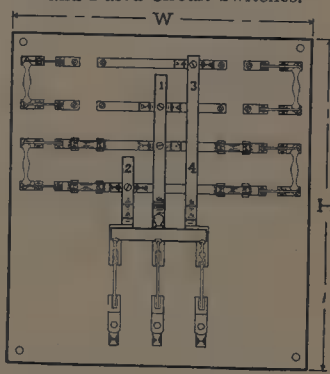
Deliveries. — Any standard panel as listed above can be shipped from the factory in from two to three days after receipt of order.



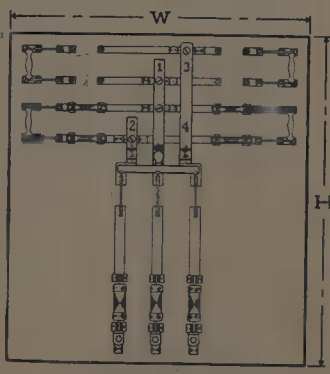
Panel with Main Lugs and Fused Circuit Switches.



Panel with Main Fuse Terminals and Fused Circuit Switches.



Panel with Fuseless Main Switch and Fused Circuit Switches.



Panel with Fused Main Switch and Fused Circuit Switches.

PANELS.

Crouse-Hinds Panels (Continued).

125 Volts, 3 to 2 Wire Double Branch, Main Lugs, Fused Circuit Switches.

Enclosed Fuse Type.					*Edison Plug Fuse Type.*				
		List Prices.					List Prices		
No. Cir.	Cat. No.	Panel.	Slate Frame.	Door Lining.	No. Cir.	Cat. No.	Panel.	Slate Frame.	Door Lining.
2	1262	$5.80	$3.10	$ .95	2	6274	$5.90	$2.95	$1.00
4	1263	9.20	3.25	1.15	4	6275	9.55	3.10	1.35
6	1264	12.60	3.40	1.40	6	6276	13.40	3.45	1.35
8	1265	16.10	3.75	1.60	8	6277	17.40	3.60	1.45
10	1266	19.55	3.90	1.60	10	6278	21.00	3.95	1.75
12	1267	23.10	4.25	1.90	12	6279	24.85	4.10	2.05
14	1268	26.85	4.45	2.05	14	6280	28.90	4.45	2.05
16	1269	30.70	4.75	2.20	16	6281	33.05	4.60	2.90
18	1270	34.10	4.95	2.90	18	6282	37.10	4.95	2.90
20	1271	37.65	5.10	2.90	20	6283	40.85	5.10	2.90
22	1272	41.70	5.45	2.95	22	6284	45.55	5.65	3.75
24	1273	45.15	5.60	2.95	24	6285	49.95	5.80	4.30
26	1274	50.15	5.95	3.65	26	6286	53.90	5.95	4.30
28	1275	54.45	6.10	4.30	28	6287	57.70	6.15	4.30
125 Volts, 3 to 2 Wire Double Branch, Main Fuse Terminals, Fused Circuit Switches.									
2	1318	$7.90	$3.10	$1.15	2	6302	$7.65	$2.95	$1.35
4	1319	11.20	3.25	1.25	4	6303	11.30	3.25	1.35
6	1320	14.60	3.60	1.35	6	6304	15.35	3.45	1.45
8	1321	18.25	3.75	1.60	8	6305	18.95	3.80	1.75
10	1322	21.65	4.10	1.90	10	6306	22.75	3.95	2.05
12	1323	25.20	4.35	2.05	12	6307	26.85	4.30	2.70
14	1324	29.15	4.60	2.25	14	6308	30.75	4.45	2.90
16	1325	32.80	4.75	2.90	16	6309	35.25	4.80	2.90
18	1326	36.35	4.95	2.90	18	6310	39.00	4.95	2.90
20	1327	39.95	5.45	2.95	20	6311	43.30	5.50	3.75
22	1328	45.85	5.65	3.75	22	6312	48.80	5.65	4.30
24	1329	49.30	5.80	4.30	24	6313	52.60	5.80	4.30
26	1330	53.05	6.30	4.30	26	6314	59.05	6.35	5.50
28	1331	57.55	6.50	4.30	28	6315	63.10	6.50	6.10
125 Volts, 3 to 2 Wire Double Branch, Fuseless Main Switch, Fused Circuit Switches.									
2	1374	$10.65	$3.10	$1.25	2	6330	$10.55	$3.10	$1.35
4	1375	13.90	3.45	1.35	4	6331	14.50	3.25	1.45
6	1376	17.50	3.60	1.60	6	6332	18.10	3.60	1.75
8	1377	20.90	3.95	1.85	8	6333	21.85	3.80	2.05
10	1378	24.25	4.10	2.05	10	6334	25.85	4.15	2.05
12	1379	28.30	4.45	2.20	12	6335	29.95	4.30	2.90
14	1380	32.00	4.60	2.90	14	6336	34.10	4.65	2.90
16	1381	35.60	4.75	2.90	16	6337	38.20	4.80	2.90
18	1382	39.40	5.30	2.95	18	6338	42.75	5.15	3.75
20	1383	44.15	5.45	3.60	20	6339	46.85	5.30	4.30
22	1384	50.90	5.65	4.30	22	6340	53.75	5.65	4.30
24	1385	54.40	5.80	4.30	24	6341	60.05	6.20	5.50
26	1386	58.10	6.30	4.30	26	6342	64.00	6.35	6.10
28	1387	63.35	6.50	5.15	28	6343	67.85	6.50	6.10
125 Volts, 3 to 2 Wire Double Branch, Fused Main Switch, Fused Circuit Switches.									
2	1430	$13.25	$3.25	$1.35	2	6358	$13.70	$3.10	$1.45
4	1431	16.65	3.45	1.60	4	6359	17.25	3.45	1.75
6	1432	20.00	3.95	1.90	6	6360	20.95	3.60	2.05
8	1433	23.50	4.15	1.90	8	6361	25.00	3.95	2.05
10	1434	27.15	4.30	2.25	10	6362	28.60	4.15	2.70
12	1435	31.15	4.45	2.35	12	6363	33.35	4.45	2.90
14	1436	35.15	4.80	2.95	14	6364	37.00	4.65	2.90
16	1437	38.60	4.95	2.95	16	6365	41.95	5.00	3.75
18	1438	42.80	5.30	3.65	18	6366	46.25	5.15	4.30
20	1439	46.75	5.45	3.75	20	6367	49.75	5.50	4.30
22	1440	55.75	6.00	5.40	22	6368	60.90	6.00	6.10
24	1441	60.00	6.15	6.10	24	6369	64.55	6.20	6.10
26	1442	63.65	6.50	6.10	26	6370	71.65	6.70	7.00
28	1443	68.00	6.65.	6.10	28	6371	75.65	6.90	7.00

The panels as listed above are high grade in every respect. The slate is black enameled and polished, and all metal parts are made of polished copper lacquered.

Deliveries. — Any standard panel as listed above can be shipped from the factory in from two to three days after receipt of order.

PANELS (Continued).

Hill Tablet Boards

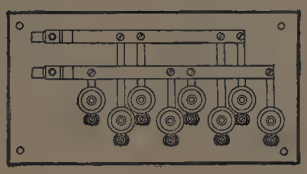
Made with black enameled slate bases; metal parts of polished copper.

Prices do not include fuses.

Two-wire boards have 250-volt spacings and three-wire boards are spaced for 125 volts.

Style M boards are arranged for plug fuses.

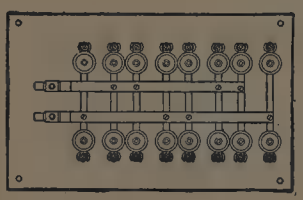
Style N boards are arranged for New Code fuses.



Style M.

Two-wire, no switches. Branches one side.

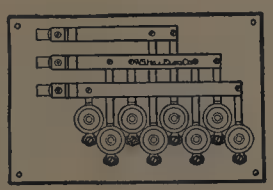
No. 39883	2 circuits	wt., 14 lbs.	8½ x 11	in.	each, $4.60
,, 39884	3 ,,	,, 17 ,,	8½ x 13½	,,	,, 6.90
,, 39885	4 ,,	,, 20 ,,	8½ x 17½	,,	,, 9.20
,, 39886	5 ,,	,, 25 ,,	8½ x 20½	,,	,, 11.50
,, 39887	6 ,,	,, 29 ,,	8½ x 22½	,,	,, 13.80
,, 39888	7 ,,	,, 34 ,,	8½ x 26½	,,	,, 16.10
,, 39889	8 ,,	,, 37 ,,	8½ x 29½	,,	,, 18.40
,, 39890	9 ,,	,, 42 ,,	8½ x 32½	,,	,, 20.70
,, 39891	10 ,,	,, 46 ,,	8½ x 35½	,,	,, 23.00



Style MM.

Two-wire, no switches. Branches both sides.

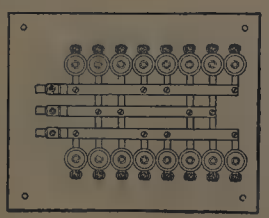
No. 39892	2 circuits	wt., 9 lbs.	8½ x 7½	in.	each, $3.30
,, 39893	4 ,,	,, 14 ,,	8½ x 11	,,	,, 6.60
,, 39894	6 ,,	,, 17 ,,	8½ x 13½	,,	,, 9.90
,, 39895	8 ,,	,, 20 ,,	8½ x 17½	,,	,, 13.20
,, 39896	10 ,,	,, 25 ,,	8½ x 20½	,,	,, 16.50
,, 39897	12 ,,	,, 29 ,,	8½ x 22½	,,	,, 19.80
,, 39898	14 ,,	,, 34 ,,	8½ x 26½	,,	,, 23.10
,, 39899	16 ,,	,, 37 ,,	8½ x 29½	,,	,, 26.40
,, 39900	18 ,,	,, 42 ,,	8½ x 32½	,,	,, 29.70
,, 39901	20 ,,	,, 46 ,,	8½ x 36½	,,	,, 33.00



Style M3.

Three-wire, no switches. Branches one side.

No. 39902	2 circuits	wt., 19 lbs.	8½ x 11	in.	each, $5.00
,, 39903	3 ,,	,, 25 ,,	8½ x 14	,,	,, 7.50
,, 39904	4 ,,	,, 31 ,,	8½ x 17½	,,	,, 10.00
,, 39905	5 ,,	,, 36 ,,	8½ x 20½	,,	,, 12.50
,, 39906	6 ,,	,, 40 ,,	8½ x 22½	,,	,, 15.00
,, 39907	7 ,,	,, 47 ,,	8½ x 26½	,,	,, 17.50
,, 39008	8 ,,	,, 54 ,,	8½ x 30½	,,	,, 20.00
,, 39009	9 ,,	,, 57 ,,	8½ x 32½	,,	,, 22.50
,, 39010	10 ,,	,, 64 ,,	8½ x 36½	,,	,, 25.00



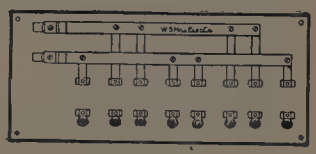
Style MM3.

Three-wire, no switches. Branches both sides.

No. 39911	2 circuits	wt., 15 lbs.	11½ x 8½	in.	each, $4.00
,, 39912	4 ,,	,, 19 ,,	11½ x 11	,,	,, 8.00
,, 39913	6 ,,	,, 25 ,,	11½ x 14	,,	,, 12.00
,, 39914	8 ,,	,, 31 ,,	11½ x 17½	,,	,, 16.00
,, 39915	10 ,,	,, 36 ,,	11½ x 20½	,,	,, 20.00
,, 39916	12 ,,	,, 40 ,,	11½ x 22½	,,	,, 24.00
,, 39917	14 ,,	,, 47 ,,	11½ x 26½	,,	,, 28.00
,, 39918	16 ,,	,, 54 ,,	11½ x 30½	,,	,, 32.00
,, 39919	18 ,,	,, 57 ,,	11½ x 32½	,,	,, 36.00
,, 39920	20 ,,	,, 64 ,,	11½ x 36½	,,	,, 40.00

PANELS.

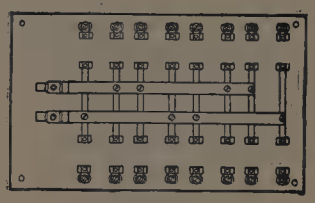
Hill Tablet Boards (Continued).



Style N.

Two-wire, no switches. Branches one side.

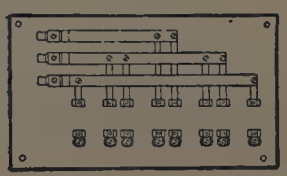
No. 39959...	2 circuits	wt., 25 lbs.	8½ x 14	in...each,	$4.20
,, 39960...	3 ,,	,, 31 ,,	8½ x 17½	,, ... ,,	6.30
,, 39961...	4 ,,	,, 36 ,,	8½ x 20½	,, ... ,,	8.40
,, 39962...	5 ,,	,, 40 ,,	8½ x 24½	,, ... ,,	10.50
,, 39963...	6 ,,	,, 50 ,,	8½ x 28½	,, ... ,,	12.60
,, 39964...	7 ,,	,, 61 ,,	8½ x 34½	,, ... ,,	14.70
,, 39965...	8 ,,	,, 66 ,,	8½ x 38	,, ... ,,	16.80
,, 39966...	9 ,,	,, 73 ,,	8½ x 41½	,, ... ,,	18.90
39967...10	,,	,, 83 ,,	8½ x 45½	,, ... ,,	21.00



Style NN.

Two-wire, no switches. Branches both sides.

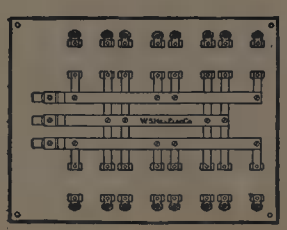
No. 39968...	2 circuits	wt., 15 lbs.	11½ x 8½	in...each,	$3.00
,, 39969...	4 ,,	,, 25 ,,	11½ x 14	,, .. ,,	5.00
,, 39970...	6 ,,	,, 31 ,,	11½ x 17½	,, .. ,,	9.00
,, 39971...	8 ,,	,, 36 ,,	11½ x 20½	,, .. ,,	12.00
,, 39972...10	,,	,, 40 ,,	11½ x 24½	,, .. ,,	15.00
,, 39973...12	,,	,, 50 ,,	11½ x 28½	,, .. ,,	18.00
,, 39974...14	,,	,, 61 ,,	11½ x 34½	,, .. ,,	21.00
,, 39975...16	,,	,, 66 ,,	11½ x 38	,, .. ,,	24.00
,, 39976...18	,,	,, 73 ,,	11½ x 41½	,, .. ,,	27.00
,, 39977...20	,,	,, 83 ,,	11½ x 45½	,, .. ,,	30.00



Style N3.

Three-wire, no switches. Branches one side.

No. 39978...	2 circuits	wt., 19 lbs.	8½ x 11	in....each,	$4.40
,, 39979...	3 ,,	,, 25 ,,	8½ x 14	,, ... ,,	6.60
,, 39980...	4 ,,	,, 31 ,,	8½ x 17½	,, ... ,,	8.80
,, 39981...	5 ,,	,, 36 ,,	8½ x 20½	,, ... ,,	11.00
,, 39982...	6 ,,	,, 40 ,,	8½ x 24½	,, ... ,,	13.20
,, 39983...	7 ,,	,, 50 ,,	8½ x 28½	,, ... ,,	15.40
,, 39984...	8 ,,	,, 57 ,,	8½ x 32½	,, ... ,,	17.60
,, 39985...	9 ,,	,, 61 ,,	8½ x 34½	,, ... ,,	19.80
,, 39986...10	,,	,, 66 ,,	8½ x 38	,, ... ,,	22.00



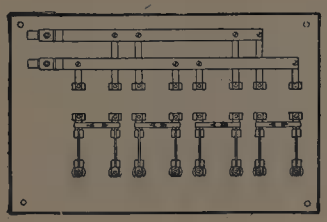
Style NN3.

Three-wire, no switches. Branches both sides.

No. 39987...	2 circuits	wt., 15 lbs.	11½ x 8½	in...each,	$3.60
,, 39988...	4 ,,	,, 19 ,,	11½ x 11	,, .. ,,	7.20
,, 39989...	6 ,,	,, 25 ,,	11½ x 14	,, .. ,,	10.80
,, 39990...	8 ,,	,, 31 ,,	11½ x 17½	,, .. ,,	14.40
,, 39991...10	,,	,, 36 ,,	11½ x 20½	,, .. ,,	18.00
,, 39992...12	,,	,, 40 ,,	11½ x 24½	,, .. ,,	21.60
,, 39993...14	,,	,, 50 ,,	11½ x 28½	,, .. ,,	25.20
,, 39994...16	,,	,, 57 ,,	11½ x 32½	,, .. ,,	28.80
,, 39995...18	,,	,, 61 ,,	11½ x 34½	,, .. ,,	32.40
,, 39996...20	,,	,, 66 ,,	11½ x 38	,, .. ,,	36.00

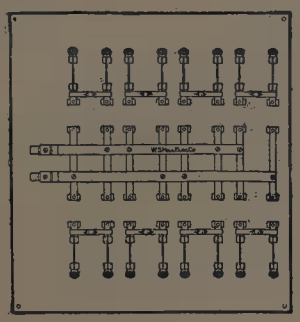
PANELS.

Hill Tablet Boards (Continued).



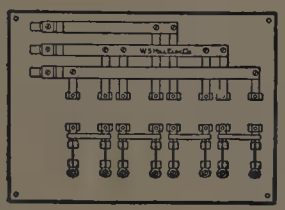
Style NS.

	Two-wire, switches.			Branches one side.	
No. 39997	2 circuits	wt., 25 lbs.	11½ x 14	in.	each, $5.20
,, 39998	3 ,,	,, 31 ,,	11½ x 17½	,, .. ,,	7.80
,, 39999	4 ,,	,, 36 ,,	11½ x 20½	,, .. ,,	10.40
,, 40000	5 ,,	,, 40 ,,	11½ x 24½	,, .. ,,	13.00
,, 40001	6 ,,	,, 50 ,,	11½ x 28½	,, .. ,,	15.60
,, 40002	7 ,,	,, 61 ,,	11½ x 34½	,, .. ,,	18.20
,, 40003	8 ,,	,, 66 ,,	11½ x 38	,, .. ,,	20.80
,, 40004	9 ,,	,, 73 ,,	11½ x 41½	,, .. ,,	23.40
,, 40005	10 ,,	,, 83 ,,	11½ x 45½	,, .. ,,	26.00



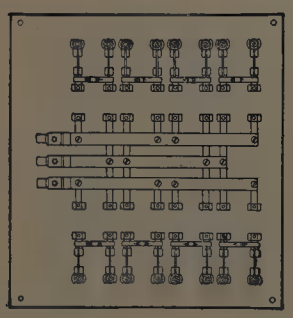
Style NNS.

	Two-wire, switches.			Branches both sides.	
No. 40006	2 circuits	wt., 15 lbs.	19 x 8½	in.	each, $4.40
,, 40007	4 ,,	,, 25 ,,	19 x 14	,, ... ,,	8.80
,, 40008	6 ,,	,, 31 ,,	19 x 17½	,, ... ,,	13.20
,, 40009	8 ,,	,, 36 ,,	19 x 20½	,, ... ,,	17.60
,, 40010	10 ,,	,, 40 ,,	19 x 24½	,, ... ,,	22.00
,, 40011	12 ,,	,, 50 ,,	19 x 28½	,, .. ,,	26.40
,, 40012	14 ,,	,, 61 ,,	19 x 34½	,, ... ,,	30.80
,, 40013	16 ,,	,, 66 ,,	19 x 38	,, ... ,,	35.20
,, 40014	18 ,,	,, 73 ,,	19 x 41½	,, ... ,,	39.60
,, 40015	20 ,,	,, 83 ,,	19 x 45½	,, ... ,,	44.00



Style N3S.

	Three-wire, switches.			Branches one side.	
No. 40016	2 circuits	wt., 28 lbs.	11½ x 11	in.	each, $5.20
,, 40017	3 ,,	,, 36 ,,	11½ x 14	,, .. ,,	7.80
,, 40018	4 ,,	,, 45 ,,	11½ x 17½	,, .. ,,	10.40
,, 40019	5 ,,	,, 53 ,,	11½ x 20½	,, .. ,,	13.00
,, 40020	6 ,,	,, 62 ,,	11½ x 24	,, .. ,,	15.60
,, 40021	7 ,,	,, 67 ,,	11½ x 26	,, .. ,,	18.20
,, 40022	8 ,,	,, 82 ,,	11½ x 31½	,, .. ,,	20.80
,, 40023	9 ,,	,, 90 ,,	11½ x 34½	,, .. ,,	23.40
,, 40024	10 ,,	,, 99 ,,	11½ x 38	,, .. ,,	26.00



Style NN3S.

	Three-wire, switches.			Branches both sides.	
No. 40025	2 circuits	wt., 19 lbs.	17 x 7½	in.	each, $4.40
,, 40026	4 ,,	,, 28 ,,	17 x 11	,, ... ,,	8.80
,, 40027	6 ,,	,, 36 ,,	17 x 14	,, ... ,,	13.20
,, 40028	8 ,,	,, 45 ,,	17 x 17½	,, ... ,,	17.60
,, 40029	10 ,,	,, 53 ,,	17 x 20½	,, ... ,,	22.00
,, 40030	12 ,,	,, 62 ,,	17 x 24	,, ... ,,	26.40
,, 40031	14 ,,	,, 67 ,,	17 x 26	,, ... ,,	30.80
,, 40032	16 ,,	,, 82 ,,	17 x 31½	,, ... ,,	35.20
,, 40033	18 ,,	,, 90 ,,	17 x 34½	,, ... ,,	39.60
,, 40034	20 ,,	,, 99 ,,	17 x 38	,, ... ,,	44.00

PANELS (Continued).

Hill Tablet Board Extras for M & N Panels.



Style M Tablet Board.

Three-Pole, Main Switches.

	For Tablet Boards of from	Price.
No. 39863	6 circuits and under	$6.45
,, 39864	12 ,, ,, more than 6	8.00
,, 39865	16 ,, ,, ,, ,, 12	9.75
,, 39866	20 ,, ,, ,, ,, 16	12.90

Three-Pole, Main Fuse, Enclosed Type.

No. 39871	6 circuits and under	$2.70
,, 39872	12 ,, ,, more than 6	3.45
,, 39873	16 ,, ,, ,, ,, 12	4.00
,, 39874	20 ,, ,, ,, ,, 16	5.35

Double-Pole, Main Switches.

No. 39867	6 circuits and under	$4.40
,, 39868	12 ,, ,, more than 6	5.40
,, 39869	16 ,, ,, ,, ,, 12	6.45
,, 39870	20 ,, ,, ,, ,, 16	8.60

Double-Pole, Main Fuse, Enclosed Type.

No. 39875	6 circuits and under	$2.40
,, 39876	12 ,, ,, more than 6	3.30
,, 39877	16 ,, ,, ,, ,, 12	3.80
,, 39878	20 ,, ,, ,, ,, 16	4.85

NOTE. — To get the approximate size of tablets having main switches or fuses, add the following number of inches to the regular lengths given in the above tables.

For Tablet Boards of from	Main Switch Fused.	Main Fuse only.
6 cir. and under	10	5
12 cir. and more than 6	12	7
16 cir. and more than 12	13	7
20 cir. and more than 16	14	8

Cabinets for tablets having gutters should be figured 6½ inches larger both in length and width than the sizes in the above tables.

Slate Frame, Four Pieces.

	Branch Fuses.	Price.	Branch Fused Switches.	Price.
2 circuits	No. 41028	$ .80	No. 41047	$1.10
4 ,,	,, 41029	1.00	,, 41048	1.35
6 ,,	,, 41039	1.15	,, 41049	1.55
8 ,,	,, 41040	1.40	,, 41050	1.70
10 ,,	,, 41041	1.65	,, 41051	1.95
12 ,,	,, 41042	1.80	,, 41052	2.20
14 ,,	,, 41043	2.00	,, 41053	2.40
16 ,,	,, 41044	2.30	,, 41054	2.65
18 ,,	,, 41045	2.40	,, 41055	2.90
20 ,,	,, 41046	2.65	,, 41056	3.00

Door Linings, large linings made in sections.

2 circuits	No. 41057	$ .60	No. 41067	$1.50
4 ,,	,, 41058	.85	,, 41068	1.65
6 ,,	,, 41059	1.20	,, 41069	1.95
8 ,,	,, 41060	1.55	,, 41070	2.55
10 ,,	,, 41061	1.90	,, 41071	3.12
12 ,,	,, 41062	2.15	,, 41072	3.70
14 ,,	,, 41063	2.55	,, 41073	4.40
16 ,,	,, 41064	2.95	,, 41074	4.70
18 ,,	,, 41065	3.30	,, 41075	5.25
20 ,,	,, 41066	3.50	,, 41076	5.45

Gutter Linings, includes frame and corner irons, sixteen pieces.

2 circuits,	No. 41077	3.90	No. 41087	$5.45
4 ,,	,, 41078	5.00	,, 41088	6.65
6 ,,	,, 41079	5.45	,, 41089	7.80
8 ,,	,, 41080	7.00	,, 41090	8.60
10 ,,	,, 41081	7.80	,, 41091	9.75
12 ,,	,, 41082	9.00	,, 41092	11.90
14 ,,	,, 41083	10.15	,, 41093	12.10
16 ,,	,, 41084	11.30	,, 41094	13.25
18 ,,	,, 41085	11.70	,, 41095	14.45
20 ,,	,, 41086	13.26	,, 41096	15.20

PANELS, Plug Switch.



Plug Switch Panel.

Plug Switch Panels for Kitchen Installation.

Where a kitchen equipment is established, a plain wood top table makes a suitable "range"; a panel with the receptacles of plug switches, when placed on the wall back of the table, completes the outfit.

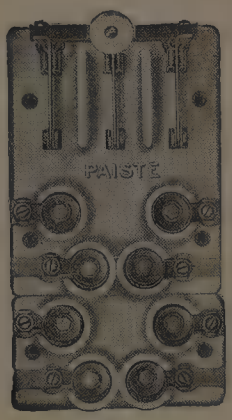
Such receptacles as are ordered will be mounted and connected so that they are ready to put in place when received, two wires being all that is necessary for the electrician to connect to the supply outlet.

The prices of the panels do not include the receptacles.

	Size.	Price.
No. 930.	28 x 6 in. Suitable for four or five receptacles. Plain slate.	$2.00
No. 931.	Same. Enameled slate	2.75
,, 932.	Same. White marble	3.75
,, 933.	34 x 6 in. Suitable for five or six receptacles. Plain slate	2.25
No. 934.	Same. Enameled slate	3.00
,, 935.	Same. White marble	4.20



No. 5111 with Type B Handle.



No. 5121 with Type B Handle.

PANELETTES (see Cut-Outs, Edison Plug and Switches, combination).

Paiste Panelettes.

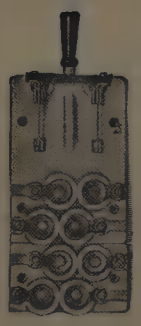
A new style of panel cut-out which shows no main wires on face, made especially for distribution boards.

Each panelette is a complete block in itself and is built up at factory to the different capacities shown.

All connections are made by running links in channels on the backs of the blocks; these channels being then filled with sealing wax. In this way the front is kept clear of heavy wires and the expense of connecting and wiring is eliminated. Head blocks supplied to order.

Use standard fuse plugs for 125-volt work and enclosed fuses with plug casings for 250-volt work. Standard package, 100 circuits.

Specify Type A for straight handles, or Type B for knob handles.



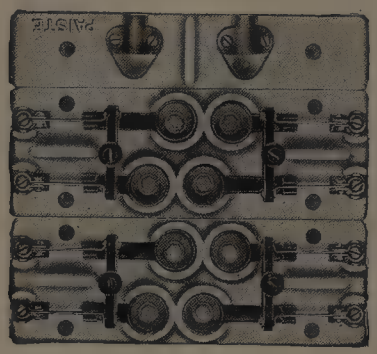
No. 5111 with Type A Handle.

Panelettes with Main Switches for 2-Wire Mains.

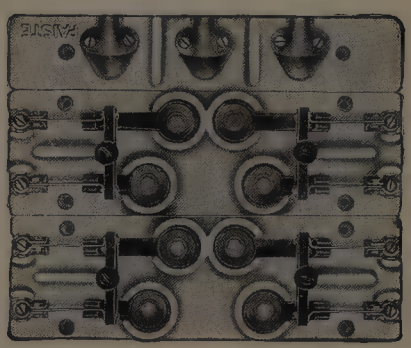
Cat. No.	Capacity.	Approximate Size.	List Price.
5110	2 circuits	$5\frac{1}{8}$ x $7\frac{5}{16}$ in.	$1.40
5111	4 ,,	$5\frac{1}{8}$ x $10\frac{3}{8}$,,	2.05
5112	6 ,,	$5\frac{1}{8}$ x $13\frac{7}{16}$,,	2.70
5113	8 ,,	$5\frac{1}{8}$ x $16\frac{1}{2}$,,	4.05
5114	10 ,,	$5\frac{1}{8}$ x $19\frac{9}{16}$,,	4.70
5115	12 ,,	$5\frac{1}{8}$ x $22\frac{5}{8}$,,	5.35

Panelettes with Main Switches for 3-Wire Mains.

5120	2 circuits	$5\frac{7}{8}$ x $7\frac{5}{16}$ in.	$2.05
5121	4 ,,	$5\frac{7}{8}$ x $10\frac{3}{8}$,,	2.75
5122	6 ,,	$5\frac{7}{8}$ x $13\frac{7}{16}$,,	3.45
5123	8 ,,	$5\frac{7}{8}$ x $16\frac{1}{2}$,,	4.15
5124	10 ,,	$5\frac{7}{8}$ x $19\frac{9}{16}$,,	4.85
5125	12 ,,	$5\frac{7}{8}$ x $22\frac{5}{8}$,,	6.45
5126	14 ,,	$5\frac{7}{8}$ x $25\frac{11}{16}$,,	7.15
5127	16 ,,	$5\frac{7}{8}$ x $28\frac{3}{4}$,,	7.85
5128	18 ,,	$5\frac{7}{8}$ x $31\frac{13}{16}$,,	8 55
5129	20 ,,	$5\frac{7}{8}$ x $34\frac{7}{8}$,,	9.25



No. 5131.



No. 5141.

PANELETTES.

Paiste Panelettes (Continued).

Panelettes with Branch Switches and 2-Wire Mains.

Cat. No.	Capacity.	Approximate Size.	List Price.
5130	2 circuits	$9\frac{5}{8}$ x $5\frac{7}{16}$ in.	$2.50
5131	4 ,,	$9\frac{5}{8}$ x $8\frac{7}{8}$,,	4.60
5132	6 ,,	$9\frac{5}{8}$ x $12\frac{5}{16}$,,	6.70
5133	8 ,,	$9\frac{5}{8}$ x $15\frac{3}{4}$,,	8.80
5134	10 ,,	$9\frac{5}{8}$ x $19\frac{3}{16}$,,	10.90
5135	12 ,,	$9\frac{5}{8}$ x $22\frac{5}{8}$,,	13.00
5136	14 ,,	$9\frac{5}{8}$ x $26\frac{1}{16}$,,	15.10
5137	16 ,,	$9\frac{5}{8}$ x $29\frac{1}{2}$,,	17.20
5138	18 ,,	$9\frac{5}{8}$ x $32\frac{15}{16}$,,	19.30
5139	20 ,,	$9\frac{5}{8}$ x $36\frac{3}{8}$,,	21.40

Panelettes with Branch Switches and 3-Wire Mains.

5140	2 circuits	$10\frac{3}{8}$ x $5\frac{7}{16}$ in.	$2.75
5141	4 ,,	$10\frac{3}{8}$ x $8\frac{7}{8}$,,	5.00
5142	6 ,,	$10\frac{3}{8}$ x $12\frac{5}{16}$,,	7.25
5143	8 ,,	$10\frac{3}{8}$ x $15\frac{3}{4}$,,	9.50
5144	10 ,,	$10\frac{3}{8}$ x $19\frac{3}{16}$,,	11.75
5145	12 ,,	$10\frac{3}{8}$ x $22\frac{5}{8}$,,	14.00
5146	14 ,,	$10\frac{3}{8}$ x $26\frac{1}{16}$,,	16.25
5147	16 ,,	$10\frac{3}{8}$ x $29\frac{1}{2}$,,	18.50
5148	18 ,,	$10\frac{3}{8}$ x $32\frac{15}{16}$,,	20.75
5149	20 ,,	$10\frac{3}{8}$ x $36\frac{3}{8}$,,	23.00

PAPER, Insulating (see Cloths).

Red Rope Paper, No. S-1782.

For insulating armature, field coils, and general repair work. Comes in three thicknesses, .005, .007, and .010 inches thick, and in widths $27\frac{1}{2}$, 36, and 40 inches wide.

The style most commonly used is .010 inches thick, in rolls of 50 to 300 lbs. All styles, per lb., $ .14

Press or Fuller Board.

A highly glazed paper for insulating armatures, etc., the regular size of sheets being 30 x 40 inches in thickness from .010 inch up to about .125 inch by micrometer.

Furnished regularly in red or gray, although it can be had in yellow, canary, tan, green, light or dark pearl, etc. Black is also made in No. 1 grade only.

Approximate weight per gross sheets of .010 thick is 98 lbs.

No. 2 Press board (regular) ..... per lb.,	$ .15
,, 1 ,, ,, ... ,,	.24
Extra No. 1 press board ..... ,,	.30

NOTE. Extra charge for small lots:

Less than 50 lbs ..... net extra,	$ .75
50 to 75 lbs ..... ,, ,,	.50
75 ,, 100 ,, ... ,, ,,	.25

Empire Papers (see Cloths).

These papers are furnished in sheets 36 inches square, or 36 inches by 72 inches.

No. D.

Specially prepared manila rope paper, coated with refined linseed oil. Thickness, .005 inches.

	Per Sq. Yd.
Average puncture voltage 6,700	$ .20

No. E.

Finest quality bond paper, coated with refined linseed oil. Thickness, .005 inches. Average puncture voltage, 8,500 ..... per sq. yd., $ .34

PAPER, Insulating.

Empire Papers (Continued).

No. F.

Natural color gray rope paper, same grade of goods as fine red rope paper, but without coloring pigment or pin holes. Thickness, .009 in. Average puncture voltage, 9,850.....per sq. yd., $ .40

PAPER, Pole Finding.

Wilkes Pole Finding Paper, No. S-1783.

A most reliable, simple, and handy means of quickly and correctly ascertaining the direction of electric currents, of testing for leakage, faulty insulation, etc. Indicates correctly with as low a potential difference as one volt.

Place a strip of *moistened* paper on a smooth board or other insulated surface and touch the two ends of the circuit wires to the paper at varying distance apart, according to the voltage. The negative pole wire instantly leaves a red stain.

Per book of 10 sheets, 5 slips each.....net, $ .25

PAPER Shades (see S).
PAPER Sleeves (see S).
PARABOLIC Reflectors (see R).

PARAFFINE.

Best Refined Paraffine.

No. S-1784. For general insulating purposes, in cakes.....per lb., $ .25

PASTE, Soldering (see Sticks, Salts, Compounds, etc.).



No. S-1786.

Allen Soldering Paste, No. S-1785.

2-oz. cans	each,	$ .30
½-lb. ,,	,,	.90
1 ,, ,,	,,	1.60

Burnley Soldering Paste, No. S-1786.

2-oz. cans	each,	$ .15
¼-lb. boxes	,,	.20
½ ,, ,,	,,	.30
1 ,, ,,	,,	.40
5- and 10-lb. pails	per lb.,	.35



No. S-1788.

Crescent Soldering Paste, No. S-1787.

2½-oz. boxes	each,	$ .30
½-lb. ,,	per lb.,	.90
1 ,, ,,	,,	1.60

Highland Soldering Paste, No. S-1788.

2-oz. tins	each,	$ .50
1-lb. cans	per lb.,	2.00
5 ,, ,,	,,	1.50



No. S-1789.

Nokorode Soldering Paste, No. S-1789.

2-oz. cans	per doz.,	$2.00
1- and 10-lb. cans	per lb.,	1.00
25 ,, 50 ,, ,,	,,	.90
100 lbs. in bulk	,,	.60



Solderene Paste.

A combination of solder with a flux already mixed in the best proportion for use. Saves time and labor. Tins the wire perfectly. Convenient. No solder required on small joints.

No. 301. Solderene paste, 1 oz.	each,	$ .20
,, 302. ,, ,, 3 ,,	,,	.50
,, 303. ,, ,, 7 ,,	,,	1.00
,, 304. ,, ,, 1 lb.	,,	2.00

Solderene Flux Paste.

Tins the wire, but requires some solder in addition.

No. 401. Solderene flux paste, 1 oz.	each,	$ .20
,, 402. ,, ,, ,, 3 ,,	,,	.50
,, 403. ,, ,, ,, 7 ,,	,,	1.00
,, 404. ,, ,, ,, 1 lb.	,,	2.00
,, 601. Ditto, in tubes, 2 oz.	,,	.30
,, 602. ,, ,, ,, 5 ,,	,,	.70

PAY=OUT Reel (see R).
PEANUTS (see Adjusters).
PEAVY (see Hooks, cant).

Little Dandy Peavy.



Little Dandy Peavey.

This is the lightest peavy ever put on the market, and still, it being made from the very best of materials, it has all the strength necessary for ordinary work. Second growth hickory handles are used in these, although we can furnish rock maple if desired. Weight, 8 pounds.

With selected hickory handles, round or duck bill hooks:

No. 224. 2¼ in. x 4-, 4½- or 5-ft. handles, per doz., $30.00

With selected rock maple handles, round or duck bill hooks:

No. 225. 2¼ in. x 4-, 4½- or 5-ft. handles, per doz. $27.50

PENDANTS (see Fixtures, electric and gas).
PENDANTS, Ceiling (see Hooks, Hangers, Supports, etc.).



Cutter's Ceiling Pendant.



Cutter's Twin Pendant.

Cutter's Ceiling Pendant.

No. S-1790. Holds wire 4 inches from ceiling, net, each, $ .12

Cutter's Twin Pendant.

No. S-1791. Self-binding porcelain insulators hold wires 8 inches apart and 4 inches from ceiling, net each, $ .24

PERCOLATOR, Coffee (see Urns).

G. E. Coffee Percolator.



Coffee Percolator.

An ideal device for coffee-making. The steam generated under the bell valve forces water and steam up through the tube into the glass globe, where it falls in the form of a fine spray on the ground coffee, through which the water percolates back into the reservoir.

No. 42665	300 watts	95–105 volts	..	each,	$20.00
,, 42666	300 ,,	106–115 ,,	..	,,	20.00
,, 42667	300 ,,	116–125 ,,	..	,,	20.00
,, 43279	300 ,,	200–225 ,,	..	,,	20.00
,, 43280	300 ,,	226–250 ,,	..	,,	20.00
,, 42668	500 ,,	95–105 ,,	..	,,	20.00
,, 42669	500 ,,	106–115 ,,	..	,,	20.00
,, 39744	500 ,,	116–125 ,,	..	,,	20.00
,, 42390	500 ,,	200–225 ,,	..	,,	20.00
,, 42391	500 ,,	226–250 ,,	..	,,	20.00

PERFECTION Tool Handle (see H).
PHOSPHOR=Bronze (see Wire).
PHOTOMETERS.

Queen Portable Photometer



No. E-4030.

Combines lightness, compactness, and solidity with a high degree of accuracy. Can be set up for use in one minute. The only connections to make are those to the line and the measuring instruments, the internal connections being complete.

The eyes are shielded from stray light. Scale in direct reading. Attachment for rotating socket and connections for watt meter. The same voltmeter may be used for both lamps.

Special rheostats for close regulation. Weight, 14 pounds. Case, 24 x 22 x 7 inches.

No. E-4030. Photometer complete with carrying case, but without instrument $75.00
,, E-4035. Ditto, with hand rotator 90.00
,, E-4040. ,, ,, universal hand rotator (for any angle) 100.00



G. D. Trolley Wire Pick-up.



No. 85.



Nos. 86 and 87.

PICK-UP.

G. D. Trolley Wire Pick-Up.

The broken wire is gripped in the tongs, the loose end of rope thrown over the limb of a tree or other support, and the wire drawn up from the ground and the end of the rope fastened.

A pair should be used on each car.

No. S-1792. G. D. trolley pick-up, with 50 ft. of rope.....each, $1.00

Safety Trolley Wire Pick-Up.

No. 85. Pick-up, without rope ....net, each, $1.25
,, 86. ,, with 50 ft. of ⅜ in. manila rope .....net, each, 1.50
No. 87. Pick-up, with 50 ft. of ⅜ in. cotton rope .....net, each, 1.75

All metal parts of malleable iron. Handles are of gray fibre, 1¼ x 21 inches, or wood, as desired.

PIKE Poles (see Poles).

PILLARS, Brass Burner (see Burners, gas).

PINIONS (see Gears).

PINLESS Break-Arm (see Brackets, iron).

PINS, see following headings:

Pins, Axle (see Axles, trolley wheel).
,, Channel.
,, Cotter (see Cotters).
,, Wood, Iron, and Steel.
,, Cups (see Acorns).

PINS, Axle (see Axles, trolley wheel).

PINS, Channel.

Channel Pins.

The channel pins are made with a straight groove deep enough to avoid cutting the wire in driving. The pins are taper pointed and slightly larger than the hole, so that when driven they envelop the wire and make a solid joint.

No. 17225. Deep grooved channel pin, ⅜ in. diam., for No. 4 wire, per 1000, $15.00
No. 17224. Deep grooved channel pin, $\frac{19}{32}$ in. diam., for No. 0 wire, per 1000, 25.00
No. 17315. Deep grooved channel pin, ¾ in. diam., for No. 00 wire, per 1000, 50.00
No. 17553. Deep grooved channel pin, ¾ in. diam., for No. 0000 wire, per 1000, 50.00



No. 17315.

PINS, Cotter (see Cotters).

PINS, Wood, Iron, and Steel (see Brackets, iron).

Wood Pins.

		Inch.	
No. S-1793.	Oak pins,	1½ x 9, plain, per 1000,	$24.00
,, S-1794.	,, ,,	1¼ x 8, ,, ,,	22.00
,, S-1795.	,, ,,	1½ x 9, painted, ,,	26.00
,, S-1796.	,, ,,	1¼ x 8, ,, ,,	24.00
,, S-1797.	Birch pins,	1½ x 9, plain, ,,	27.00
,, S-1798.	,, ,,	1¼ x 8, ,, ,,	24.00
,, S-1799.	Locust pins,	1½ x 9, plain, ,,	40.00
,, S-1800.	,, ,,	1¼ x 8, ,, ,,	36.00
,, S-1801.	Brown Duplex pins, oak,	,,	30.00
,, S-1802.	,, ,,	,, locust, per 1000,	40.00



Wood Pin.



Duplex Pin.

Wood Reënforced Pins.

No. S-1803. Wood corner pins, 1½ x 9, with bolt, nut, and washer (bolt runs all the way through pin), oak.....per 100, $12.00
Locust..... ,, 15.00



Corner Pin.

(*Continued on next page.*)

PINS, Wood, Iron, and Steel.



O'Neil Pin.



Dorrance Pin.

Wood Reënforced Pins (Continued).

No. S-1804. O'Neil pins, made of selected locust, reënforced with a $\frac{3}{8}$ in. Bessemer steel rod running through the greater portion, per 100, $15.00

No. S-1805. Dorrance (or Western Union) steel pin with wood top, $\frac{1}{2}$ in., per 100, 10.00

Locke Steel Pins with Wood Tops.

These pins consist of a high carbon bolt and a thoroughly paraffined wood top. They embody the mechanical advantages of the porcelain-base pins as to strength, durability, small hole in the cross-arm, etc. They are furnished with either plain or galvanized bolt, complete with nut and washer.

Note that pins No. 34 and 35 can be used with channel or angle iron for switchboard or similar work or for iron cross-arms.



Locke Steel Pin with Wood Top.

Pin No.	Dimensions in Inches. Height of Wood.	Bolt Extends.	Diam. of Base.	Size of Bolt.	Size of top.	Length of Thread.	Weight, Packed.
6	4	5	$2\frac{1}{4}$	$\frac{5}{8}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$ lbs.
7	$4\frac{1}{2}$	6	$2\frac{1}{4}$	$\frac{5}{8}$	$1\frac{3}{8}$	2	$1\frac{7}{8}$,,
8	$4\frac{1}{2}$	5	$1\frac{7}{8}$	$\frac{1}{2}$	1	2	1 ,,
10	$4\frac{1}{2}$	5	$1\frac{7}{8}$	$\frac{7}{16}$	1	2	$\frac{3}{4}$,,
12	$3\frac{1}{2}$	5	$1\frac{7}{8}$	$\frac{1}{2}$	1	$1\frac{3}{4}$	$\frac{7}{8}$,,
13	$5\frac{1}{4}$	$5\frac{1}{4}$	$2\frac{1}{4}$	$\frac{1}{2}$	1	$2\frac{1}{4}$	$1\frac{1}{4}$,,
31	$5\frac{3}{4}$	$4\frac{3}{4}$	$2\frac{1}{4}$	$\frac{1}{2}$	$1\frac{3}{8}$	$2\frac{1}{4}$	$1\frac{1}{8}$,,
32	$5\frac{3}{4}$	$4\frac{3}{4}$	$2\frac{1}{4}$	$\frac{5}{8}$	$1\frac{3}{8}$	$2\frac{1}{4}$	$1\frac{7}{8}$,,
34	$4\frac{1}{2}$	1	$1\frac{7}{8}$	$\frac{7}{16}$	1	2	$\frac{5}{8}$,,
35	$5\frac{1}{4}$	$1\frac{1}{4}$	$2\frac{1}{4}$	$\frac{1}{2}$	1	$2\frac{1}{4}$	$\frac{3}{4}$,,

Prices on application.

Locke Steel Pins with Porcelain Bases.



Locke's Wood-Top Porcelain-Base Pin.

Pin No.	Dimensions in Inches. Bolt Extends.	Diam. of Base.	Size of Bolt.	Size of Top.	Porcln. Height.	Height of Wood.	Base No.	Weight, Packed.
1	$4\frac{7}{8}$	$2\frac{1}{4}$	$\frac{1}{2}$	1	$2\frac{1}{4}$	$2\frac{3}{8}$	1	$1\frac{1}{4}$ lbs.
2	$4\frac{3}{4}$	$2\frac{5}{8}$	$\frac{1}{2}$	1	3	$1\frac{3}{4}$	2	$1\frac{1}{2}$,,
3	$5\frac{1}{8}$	$2\frac{5}{8}$	$\frac{1}{2}$	1	3	$2\frac{3}{8}$	2	$1\frac{5}{8}$,,
4	$4\frac{1}{2}$	$2\frac{1}{4}$	$\frac{1}{2}$	1	$2\frac{1}{4}$	$1\frac{3}{4}$	1	$1\frac{1}{4}$,,
5	6	$2\frac{1}{2}$	$\frac{5}{8}$	$1\frac{3}{8}$	$2\frac{1}{4}$	$2\frac{1}{4}$	3	$1\frac{7}{8}$,,
16	$5\frac{1}{4}$	3	$\frac{1}{2}$	$1\frac{3}{8}$	$3\frac{1}{2}$	$2\frac{1}{4}$	4	2 ,,
17	$5\frac{1}{4}$	3	$\frac{5}{8}$	$1\frac{3}{8}$	$3\frac{1}{2}$	$2\frac{1}{4}$	4	$2\frac{1}{2}$,,
18	$5\frac{3}{4}$	$4\frac{1}{4}$	$\frac{5}{8}$	$1\frac{3}{8}$	6	$2\frac{3}{4}$	5	$5\frac{1}{2}$,,
19	$5\frac{1}{4}$	$2\frac{5}{8}$	$\frac{1}{2}$	$1\frac{3}{8}$	3	$2\frac{3}{4}$	2	$1\frac{5}{8}$,,
20	$\frac{3}{4}$	$2\frac{5}{8}$	$\frac{7}{16}$	1	3	$1\frac{3}{4}$	2	$1\frac{1}{8}$,,
21	$5\frac{1}{2}$	3	$\frac{1}{2}$	$1\frac{3}{8}$	$3\frac{1}{2}$	$3\frac{1}{2}$	4	$2\frac{1}{8}$,,
22	$5\frac{1}{2}$	3	$\frac{5}{8}$	$1\frac{3}{8}$	$3\frac{1}{2}$	$3\frac{1}{2}$	4	$2\frac{5}{8}$,,
23	$5\frac{1}{2}$	$3\frac{1}{2}$	$\frac{5}{8}$	$1\frac{3}{8}$	5	4	7	5 ,,
24	$\frac{3}{4}$	3	$\frac{1}{2}$	$1\frac{3}{8}$	$3\frac{1}{2}$	$2\frac{1}{4}$	4	$1\frac{3}{4}$,,
25	$1\frac{1}{2}$	3	$\frac{1}{2}$	$1\frac{3}{8}$	$3\frac{1}{2}$	$3\frac{1}{2}$	4	$1\frac{7}{8}$,,
26	$\frac{7}{8}$	$2\frac{1}{4}$	$\frac{7}{16}$	1	$2\frac{1}{4}$	$2\frac{3}{8}$	1	$\frac{7}{8}$,,
27	$1\frac{1}{8}$	$2\frac{5}{8}$	$\frac{1}{2}$	1	3	$2\frac{3}{8}$	2	$1\frac{1}{8}$,,
28	$1\frac{1}{2}$	$3\frac{1}{2}$	$\frac{5}{8}$	$1\frac{3}{8}$	5	4	7	4 ,,
30	$6\frac{1}{2}$	$4\frac{1}{4}$	$\frac{3}{4}$	$1\frac{3}{8}$	6	$4\frac{1}{2}$	5	6 ,,
42	$6\frac{1}{2}$	$4\frac{1}{2}$	$\frac{3}{4}$	$1\frac{3}{8}$	8	$3\frac{1}{2}$	42	8 ,,

Note that pins Nos. 20, 24, 25, 26, and 27 can be used with angle or channel iron for switchboard and similar work or for iron cross-arms.

NOTE. — All pin bases are glazed brown, unless especially ordered.

Prices on application.

PINS (Continued).



Locke's No. 14 Pin.

Locke Steel Pins with Galvanized Bases.

Similar mechanically to the porcelain base pins. The bases are malleable iron, galvanized.

No. 14. 1-in. thread, $4\frac{3}{4}$ in. above arm, bolt $5\frac{1}{2}$ x $\frac{7}{16}$ in., wt. $\frac{3}{4}$ lb.
,, 33. 1 ,, ,, $4\frac{3}{4}$,, ,, ,, ,, $9\frac{1}{2}$ x $\frac{7}{16}$,, ,, $1\frac{1}{8}$,,

Prices on application.

Iron Pins and Brackets.

All the standard makes of malleable and gray iron pins and brackets are listed under "Brackets, iron."



No. 31824.

Pipe Bracket Pins.

Made of malleable iron, for standard size iron pipe.

No. 31824.	Pin for	$1\frac{1}{4}$-in.	pipe	(1.66 in.	outside diam.)	..each, $ .35
,, 40205.	,,	,, $1\frac{1}{2}$	,,	(1.9 ,,	,, ,,	).. ,, .35
,, 40206.	,,	,, 2	,,	(2.38 ,,	,, ,,	).. ,, .40

PINS and Cups (see Acorns).

PIPE (see Conduit).

Brass Pipe for Fixtures and Clusters.

Heavy brass pipe, polished and lacquered, $\frac{5}{8}$ inch outside diam. When threaded, fits $\frac{3}{8}$-inch iron pipe, size of tap. (Other diameters furnished to order.)

Furnished in 10-ft. lengths, or in short lengths, threaded both ends.

No. S-1806.	10-ft.	lengths,	heavy brass pipe	..... per ft., $ .30
,, S-1807.	6-in.	,,	threaded	..... each, .18
,, S-1808.	8 ,,	,,	,,	..... ,, .22
,, S-1809.	12 ,,	,,	,,	..... ,, .30
,, S-1810.	18 ,,	,,	,,	..... ,, .44
,, S-1811.	24 ,,	,,	,,	..... ,, .60
,, S-1812.	36 ,,	,,	,,	..... ,, .90

Brass Casing for Fixture Stems.

A thin brass pipe, polished and lacquered, for use over iron pipe in fixture stems, etc. (Too thin to be threaded.)

No. S-1813...	$\frac{1}{2}$-in.	casing	.....	per ft., $ .30
,, S-1814...	$\frac{5}{8}$,,	,,	.....	,, .30
,, S-1815...	$\frac{3}{4}$,,	,,	.....	,, .35
,, S-1816...	$\frac{7}{8}$,,	,,	.....	,, .40
,, S-1817...	1 ,,	,,	.....	,, .45
,, S-1818...	$1\frac{1}{4}$,,	,,	.....	,, .60
,, S-1819...	2 ,,	,,	.....	,, 1.00

Iron Pipe for Fixture Stems

(see Close Nipples, under Fixtures, electric and gas).

In lengths as it comes or cut any length to order, threaded extra.

No. S-1820...	$\frac{1}{4}$-in.,	random	lengths	..... per ft., $ .03
,, S-1821...	$\frac{3}{8}$,,	,,	,,	..... ,, .03½
,, S-1822...	$\frac{1}{2}$,,	,,	,,	..... ,, .04

PIPE Straps (see Clips).

PITCH Kettles (see K).

PLAIN Arm (see Arms, cross).



No. 324.



Nos. 325–326.



No. 329.



No. 331.



No. 332.



No. 980.



No. 981.



No. 982.



No. 983.



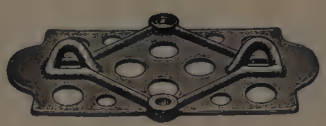
No. 984.



Name Plate.



Strain Plate.



Double Strain Plate.

PLATES, Bracket (see Brackets, brass).

Dale Brass Bracket Plates.

No. 324. Brass wall plate.....per 100, $4.00
Diameter, 1¼ inches.
Male or female thread, ⅜ inch, brass.

No. 325. Brass bracket plate.....per 100, 10.00
Diameter, 2 inches.
Female thread, ⅜ inch, brass.

No. 329. Brass wall plate.....per 100, 16.00
Diameter, 1½ inches.
Female thread, ⅜ inch, brass.

No. 331. Cast brass wall plate.....per 100, 30.00
Diameter, 3 inches.
Male or female thread, ⅜ inch, brass.

No. 332. Cast brass bracket back.....per 100, 50.00
Diameter, 3 inches.
Depth, 1½ inches.
Male or female, ⅜ inch, brass.

Gas Bracket Backs and Cups.

No. 980. Spun brass bracket backs, polished.
2½ inch diameter.....per gross, $4.00
3 ,, ,, ... ,, 5.00
4 ,, ,, ... ,, 10.00

No. 981. Spun burner cups, polished ..... ,, 1.50

,, 982. Box plates, polished brass ..... ,, 12.00
2½ inch diameter, 1⅛ inch inside slot, for ⅜ inch iron pipe.

No. 983. Stamped bracket backs, dipped and lacquered.
2½ inch diameter.....per gross, $2.50
3 ,, ,, ... ,, 3.50

No. 984. Stamped burner cups..... ,, 1.25

PLATES, Cord (see Trimmings, car).

PLATES, Gang (see Switches, flush, etc.).

PLATES, Name.

Metal Name Plates.

No. 102. Size 2⅜ x ¾ inches.....each, $ .10

,, 103. ,, 3⅛ x ¾ ,, ... ,, .12

Standard finishes, light bronze and nickel plated. Other finishes to order.

PLATES, Strain.

Strain Plates.

	List Price, per 100.
No. 1141. Malleable iron plate, without ear	$80.00
,, 1142. ,, ,, ,, galv., without ear,	90.00
,, 1143. Double centered solder ear for No. 0 B. & S. round wire.....	85.00
No. 1144. Double centered solder ear for No. 2/0 B. & S. round wire.....	85.00
No. 1145. Double centered solder ear for No. 4/0 B. & S. round wire.....	110.00
No. 1146. Double centered solder ear for No. 2/0 B. & S. grooved wire.....	85.00
No. 1147. Double centered solder ear for No. 3/0 B. & S. grooved wire.....	110.00
No. 1148. Double centered solder ear for No. 4/0 B. & S. grooved wire.....	110.00

Double Trolley Strain Plates.

Distance between trolley wires, 6 inches.

	List Price, Each.
No. 996. Bronze.....	$2.50
,, 1137. Malleable iron.....	1.00

PLATES, Switch (see Switches, flush, etc.).

PLATE Warmer (see Warmer).

PLATINUM (see Wire).

Weight of Platinum.

Weight per square inch of platinum sheet and foil in troy ounces.

Size Dec. In.	Weight.	Size Dec. In.	Weight.	Size Dec. In.	Weight.
.00045	.005104	.030	.340208	.066	.748458
.0005	.005666	.031	.351562	.067	.759812
.001	.011333	.032	.362895	.068	.771145
.0015	.017020	.033	.374229	.069	.782479
.002	.022687	.034	.385562	.070	.793833
.0025	.028354	.035	.396916	.071	.805166
.003	.034020	.036	.408250	.072	.816500
.0035	.039687	.037	.419583	.073	.827854
.004	.045354	.038	.430937	.074	.839187
.0045	.051041	.039	.442270	.075	.850520
.005	.056708	.040	.453604	.076	.861875
.0055	.062375	.041	.464958	.077	.873208
.006	.068041	.042	.476291	.078	.884541
.007	.079375	.043	.487625	.079	.895895
.008	.090729	.044	.498979	.080	.907229
.009	.102062	.045	.510312	.081	.918562
.010	.113416	.046	.521666	.082	.929916
.011	.124750	.047	.533000	.083	.941250
.012	.136083	.048	.544333	.084	.952583
.013	.147416	.049	.555687	.085	.963937
.014	.158770	.050	.567020	.086	.975270
.015	.170104	.051	.578354	.087	.986604
016	.181437	.052	.589687	.088	.997958
.017	.192791	.053	.601041	.089	1.009291
.018	.204125	.054	.612375	.090	1.020625
.019	.215458	.055	.623729	.091	1.031979
.020	.226812	.056	.635062	.092	1.043333
.021	.238145	.057	.646395	.093	1.054666
.022	.249479	.058	.657750	.094	1.066000
.023	.260833	.059	.669083	.095	1.077333
.024	.272166	.060	.680416	.096	1.088666
.025	.283500	.061	.691770	.097	1.100020
.026	.294854	.062	.703104	.098	1.111354
.027	.306187	.063	.714437	.099	1.122687
.028	.317520	.064	.725791	.100	1.134041
.029	.328875	.065	.737125		

Prices on application.



Carbon Pliers.

PLIERS, Carbon (see Cutter, carbon).

Carbon Cutting Pliers.

Combination carbon cutting and gas pliers for trimmer's use.

No. S-1823. Carbon pliers . . . . . .each, $4.80

PLIERS, Side Cutting.

Swedish Side Cutting Pliers.

Made especially for telegraph, telephone, and electrical work. Will cut the hardest kinds of iron and steel wire without injury to the cutting edges. Made of Bo-ras-ic steel.



Nos. 112 and 115.

Size.		No. 112 Black.	No. 113 Polished.	No. 114 Nickeled.
4	in. . . . . .per doz.,	$12.35	$16.00	$19.85
5	,, ... ,,	13.60	17.10	20.75
5½	,, ... ,,	15.60	19.70	23.50
6	,, ... ,,	16.70	20.95	24.60
7	,, ... ,,	21.50	25.70	29.50
8	,, ... ,,	25.85	30.30	34.20



No. 118.



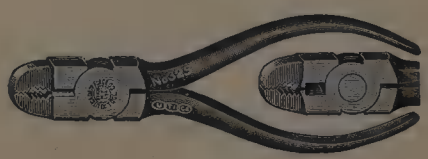
Insulated Handle Pliers.



No. 342.



No. 655.



No. 325.



No. 700.

PLIERS, Side Cutting (Continued).

Swedish Side Cutting Pliers with Rounded Edges.

Will not wear out linemen's clothes. No sharp corners to injure copper wire.

Size.		No. 115 Black.	No. 116 Polished.	No. 117 Nickeled.
4 in.	per doz.,	$12.85	$16.50	$20.50
5 ,,	,,	14.15	17.85	21.50
5½ ,,	,,	16.35	20.35	24.45
6 ,,	,,	17.45	22.00	25.65
7 ,,	,,	22.35	26.85	31.15
8 ,,	,,	27.00	31.50	35.75

Round Edge Pliers with Rubber Insulated Handles.

No. 118. 6-inch ..... per doz., $24.00
,, 118. 7 ,, ... ,, 29.00
,, 118. 8 ,, ... ,, 35.00

Mica Insulated Pliers.

These tools are insulated with moulded mica insulation, which has been used for years in line material, and is one of the best insulations known. It offers the greatest protection with tools of this character when properly used.

	Per Doz.
No. 300. 6-in. safety side cutting pliers; wt., 8 oz.	$32.50
No. 301. 7-in. safety side cutting pliers; wt., 12 oz.	42.90
No. 302. 8-in. safety side cutting pliers; wt., 16 oz.	52.00
No. 303. 7-in. safety insulated gas pliers; wt., 12 oz.	19.50

No. 342 Diagonal Cutting Pliers.

Furnished in polished finish only.

	Per Doz.		Per Doz.
3-inch	$18.00	5-inch	$23.00
3½ ,, ...	19.00	5½ ,, ...	26.00
4 ,, ...	20.00	6 ,, ...	28.50
4½ ,, ...	21.60		

Long Nose, Needle Point, Side Cutting Pliers.

The nose is absolutely indispensable for working in deep and narrow places. Especially useful for telephone and switchboard builders, jewelers, etc.

No. 655. 5½-in., black, with polished jaws ..... per doz., $16.50
No. 755. 5½-in., polished ..... ,, 19.00
,, 855. 5½ ,, nickeled ..... ,, 22.15

Flat Nose, Gas Pipe, Side Cutting, Round Edge and Round End Pliers.

For plumbers' and general household use. Made from the highest quality tool steel.

No. 325. 5½-in., black ..... per doz., $12.00
,, 425. 5½ ,, polished ..... ,, 14.00
,, 525. 5½ ,, nickeled ..... ,, 17.00

Combination Flat Nose, Gas Pipe, Side Cutting and Button Pliers.

These are made from the highest quality of tool steel and combine six different tools in one.

No. 700. 7-in., black ..... per doz., $18.10
,, 701. 7 ,, polished ..... ,, 20.00
,, 702. 7 ,, nickeled ..... ,, 24.60



Stubbs' Genuine Pliers.

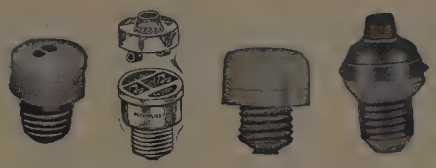
PLIERS, Side Cutting (Continued).

Stubbs' Genuine Side Cutting Pliers, No. S=1824.

	Per Doz.		Per Doz.
4-inch	$20.00	6-inch	$22.00
4½ ,,	20.00	7 ,,	36.00
5 ,,	20.00	8 ,,	48.00
5½ ,,	20.00		

PLUGS, see following headings:

Plugs, Attachment.
,, Attachment, marine.
,, Conduit.
,, Fuse.
,, Gas Engine (see Plugs, spark).
,, Sealing (see Plugs, conduit).
,, Socket.
,, Skedoodle (see Lamps, incandescent).
,, Spark.
,, Theatre (see Connectors and Receptacles).
,, Wood (see Plugs, attachment and conduit).
,, and Receptacles (see R).



Nos. 50996 and 3089. No. 16410. No. 477. No. 34154.

PLUGS, Attachment (see Taps, current, and Receptacles, flush).

Fuseless Attachment Plugs.

No.		Std. Pkg.	Each.
50996.	G. E., porcelain cap, fuseless, Ed..	250	$ .22
16410.	Manhattan, porcelain cap, fuseless, Edison	250	.22
3286.	Perkins, porcelain cap, fuseless, Edison (like No. 1286)	250	.22
477.	Paiste, porcelain cap, fuseless, Ed.,	250	.22
34153.	G. E., brass cap, 1⅜ in. hole, fuseless, Edison	250	.22
34154.	G. E., brass cap, ⅜ in. hole, fuseless, Edison	250	.22
1948.	Bryant, brass cap, ⅜-in. hole, fuseless, Edison	250	.22
430.	Paiste P-K, brass cap, 1⅜-in. hole, fuseless, Edison	250	.22
494.	Paiste P-K, brass cap, ⅜-in. hole, fuseless, Edison	250	.22
1009.	Bryant, wood, fuseless, Edison....	100	.12
1151.	Mica attaching plug, wt. 3 oz.....		.44



No. 430. No. 494. No. 1009. No. 1151.



No. 1286. Nos. 1948 & 925.

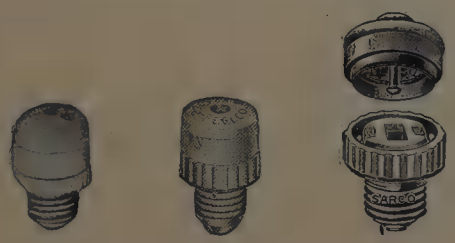
Fusible Attachment Plugs.

No.		Std. Pkg.	Each.
3089.	G. E., porcelain cap, fusible, Ed....	250	$ .22
1286.	Perkins, ,, ,, ,, ,, ...	250	.22
925.	Bryant, brass ,, ,, ,, ...	250	.22

Swivel Attachment Plugs.

No.		Std. Pkg.	Each.
28840.	G. E., porcelain, Ed. base, fuseless,	250	$ .30
18351.	Howe, ,, ,, ,, ,,	100	.45
H-1824.	Saco ,, ,, ,, ,,	250	.30

The Saco plug separates at any angle, swivels in either direction, maintains its polarity, and has no exposed contacts in bottom part.



No. 28840. No. 18351. No. H-1824.

Separable Attachment Plugs.

No.		Std. Pkg.	Each
42456.	G. E., porcelain, Ed. base, fuseless,	250	$ .25
3284.	Perkins, ,, ,, ,, ,,	250	.25
5406.	Hubbell, ,, ,, ,, ,,	100	.30
5408.	,, composition cap, Ed. base, fuseless (like No. 5406)...	100	.35
5410.	Hubbell, brass covered cap, Ed. base, fuseless (like No. 5406)...	100	.40
	Colored porcelain caps, red, green, or yellow .....extra,		.10
5467.	Hubbell, composition plug, Ed., fuseless.....	100	.50

This plug is practically indestructible, and is especially adapted for use in mills and factories.

(*Continued on next page.*)



No. 3284. No. 5406. No. 5467.

PLUGS, Attachment.

Separable Attachment Plugs
(Continued).

No.		Std. Pkg.	Each.
5468.	Hubbell, composition plug, Ed., with brass covered cap (like No. 5467)	100	$ .60
5491.	Hubbell, porcelain plug, for reënforced cord (like No. 5493)	50	.60
5493.	Hubbell, composition plug, for reënforced cord	50	.80



No. 5493. No. 5323. No. 5423. No. 5497.

Hubbell Chandelier Plugs.

A modification of the regular style of separable plug intended to be used in a ball or sphere at the bottom of the chandelier or cluster.

Without Casing.

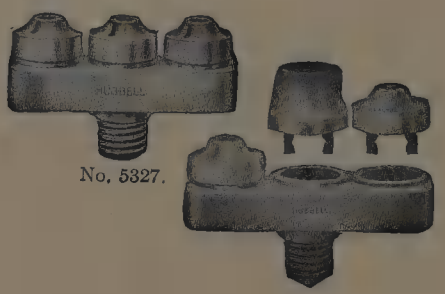
No.		Std. Pkg.	Each.
5323.	Chandelier plug, porcelain cap	20	$ .45
5324.	,, ,, composition cap	20	.50
5422.	,, ,, brass cov'd ,,	20	.55

With Brass Casing.

5325.	Chandelier plug, porcelain cap	20	$ .70
5326.	,, ,, composition cap	20	.75
5423.	,, ,, brass cov'd ,,	20	.80

With Brass Casing and ⅛-inch Socket Nipple.

5495.	Chandelier plug, porcelain cap	20	$ .80
5496.	,, ,, composition cap	20	.85
5497.	,, ,, brass cov'd ,,	20	.90



No. 5327.

No. 5331.

Hubbell Multiple Attachment Plugs.

This device is for use in a receptacle to tap the current for three different purposes, and is not intended for use in a key socket.

No.		Std. Pkg.	Each.
5327.	Ed. multiple attachment plug, lamp base and three plugs	10	$1.50
5331.	Ed. multiple attachment plug, lamp base, two plugs, and one receptacle for lamp	10	1.50
5335.	Multiple plug for Chapman receptacle, complete with three plugs	10	1.50



No. 5335.

Hubbell Wall Attachment Plugs.

Side Wall Plugs.

No.		Std. Pkg.	Each.
5426.	Wall plug, porcelain cap, concealed	50	$ .40
5427.	,, ,, composition cap, conce'd,	50	.45
5428.	,, ,, brass cov'd ,, ,,	50	.50
5512.	,, ,, porcelain cap, cleat	50	.40
5513.	,, ,, composition cap, cleat	50	.45
5514.	,, ,, brass cov'd ,, ,,	50	.50

Angle Plugs.

No.		Std. Pkg.	Each.
5515.	Angle plug, without base	20	$ .50
5516.	,, ,, with concealed base	20	.80
5517.	,, ,, ,, cleat ,,	20	.80



No. 5426. No. 5517.

Hubbell Floor Plugs.

Designed for use with waterproof flush floor boxes. The smallest and most compact plug for the purpose.

No.		Std. Pkg.	Each.
5469.	Floor plug, porcelain cap	50	$ .60
5470.	,, ,, composition cap	50	.65
5471.	,, ,, brass covered cap	50	.70



No. 5469. No. 5518.

Hubbell Theatre Plugs.

Made of composition to stand the hard usage of stage lighting. Practically indestructible.

No.		Std. Pkg.	Each.
5518.	Theatre plug	30	$ .70
5519.	,, ,, brass covered cap	30	.60

PLUGS, Attachment (Continued).

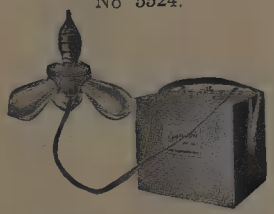


No. 5521.

No. 5520. No. 5424.



No 5524.



Charging Plug, No. 93B.

Hubbell Weatherproof Plugs.

Designed for outdoor work, especially for electric signs.

		Std. Pkg.		
No. 5520.	Weatherproof plug, porcelain cap	30	each,	$1.00
,, 5521.	,, ,, composition cap	30	,,	1.05
,, 5522.	,, ,, brass covered cap	30	,,	1.10

Extra Parts of Hubbell Plugs.

Fuseless.

		Std. Pkg.		
No. 5424.	Edison receptacle for attachment plug	30	each, $	.17
,, 5419.	Porcelain cap	30	,,	.15
,, 5420.	Composition cap	30	,,	.20
,, 5421.	Brass covered porcelain cap	30	,,	.25
,, 5523.	,, ,, composition cap	30	,,	.30

Fusible.

		Std. Pkg.		
No. 5524.	Porcelain cap, fusible	30	each, $	.20
,, 5525.	Composition cap, fusible	30	,,	.25
,, 5526.	Brass covered porcelain cap, fusible	30	,,	.30
,, 5527.	,, ,, composition cap, fusible	30	,,	.35



No. 92.

Benjamin Receptacle Plugs.

These plugs are made for Edison socket only.

		Std. Pkg.		
No. 92.	2-light multiple plug	36	each,	$1.00
,, 93.	3 ,, ,, ,,	36	,,	1.30
,, 94.	4 ,, ,, ,,	36		1.60
,, 92½.	2 ,, series ,,	36	,,	1.10
,, 93B.	3 ,, battery charging plug	36	,,	1.50

(The No. 93B with three 32 candle-power lamps on a 110-volt circuit will give a 3-ampere maximum rate. If 16 candle-power lamps are used, the rate will be 1½ amperes. Other combinations to suit.)



No. 296.

Benjamin Candelabra Cluster Plugs.

Intended for use with candelabra lamps in parallel for either 110 volts or lower voltage circuits. Fits into standard Edison socket.

		Std. Pkg.		
No. 293.	3-light candelabra, cluster plug	36	each,	$1.20
,, 294.	4 ,, ,, ,, ,,	36	,,	1.30
,, 295.	5 ,, ,, ,, ,,	36	,,	1.40
,, 296.	6 ,, ,, ,, ,,	36	,,	1.50



No. 942.

Benjamin Twin Socket Plugs.

By use of device, axis of lamps is changed 90 degrees and can be turned to any desired position in a plane at right angles with supporting socket, thus increasing effectiveness of light distribution. Polished brass finish.

		Std. Pkg.		
No. 941.	1-light plug, twin socket	25	each, $	.60
,, 942.	2 ,, ,, ,, ,,	25	,,	.90

For nickel plating add 5 cents to list.



No. 36697. No. 29431.

PLUGS, Attachment, Marine (see Receptacles and Plugs, marine).

G. E. Marine Attaching Plug.

No. 36697. N. W. T. attaching plug ..... each, $ .27
The brass cap is finished in dull black.

No. 29431. W. T. attaching plug ..... each, .75
Fits marine receptacles listed under R.

PLUGS, Conduit.

Wolf's Wood Conduit Plugs.



Wolf's Conduit Plug.

Their chief use is where a conduit is turned up and where ends are left on the floors to be finished later.

All contractors are aware of the trouble of fishing conduit and of pulling wire when cement, plaster, or any dirt gets into the conduit through lack of proper protection during its installation.

These plugs will also be found useful to plug walls when setting switch and bracket boxes, running moulding and fastening pipe straps, and where there is any fastening to be done, on walls or ceilings, which does not require an expansion bolt.

These plugs in their respective sizes are of uniform size and perfectly fit the conduit and bushing.

No. 1.	For ¼-in. conduit	per 100, $ .25	per 1000, $2.25
,, 2.	,, ¾ ,, ,,	,, .30	,, 2.75
,, 3.	,, 1 ,, ,,	,, .40	,, 3.25
,, 4.	,, 1¼ ,, ,,	,, .50	,, 4.00
,, 5.	,, 1½ ,, ,,	,, .60	,, 5.00
,, 6.	,, 2 ,, ,,	,, .75	

PLUGS, Fuse.

G. E. Mica Cover Fuse Plugs for 125-Volt Circuits.

These are the standard N. E. Code style used for all Edison plug cut-outs. If wanted in old-style brass covers with no mica window, add 1 cent to list.


Fuse Plug.

		Std. Pkg.	
No. 66327.	3-ampere fuse plug	500	each, $ .07
,, 66329.	6 ,, ,, ,,	500	,, .07
,, 66331.	10 ,, ,, ,,	500	,, .07
,, 66333.	12 ,, ,, ,,	500	,, .07
,, 66335.	15 ,, ,, ,,	500	,, .07
,, 66337.	20 ,, ,, ,,	500	,, .07
,, 63339.	25 ,, ,, ,,	500	,, .07
,, 66341.	30 ,, ,, ,,	500	,, .07

Standard package must be of one size only.

Large G. E. Fuse Plugs for 250-Volt Circuits or Less.


No. 10979.

These plugs fit the large Edison cut-outs listed under Cut-outs, Edison plug.

		Std. Pkg.	
No. 10979.	10-ampere fuse plug	50	each, $ .50
,, 10980.	20 ,, ,, ,,	50	,, .50
,, 10981.	30 ,, ,, ,,	50	,, .50
,, 10982.	40 ,, ,, ,,	50	,, .50
,, 10983.	50 ,, ,, ,,	50	,, .50
,, 10984.	60 ,, ,, ,,	50	,, .50

Renewable Fuse Plug Casings, 250 Volts.


G. E. Plug.


Noark Plug.

These casings take the N. E. Code enclosed fuses listed under "Fuses enclosed," in sizes up to their capacity as listed. They consist of a brass tube, the exposed parts of which are insulated by a porcelain shell. In the upper end is fitted a spring clip to receive the ferrule contact of the reload; the ferrule on the other end forms the center contact of the plug. It will be readily seen that by the use of this device the plug may be made to serve for a large range of fuse capacities. Fuses are not included in price.

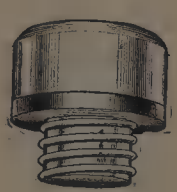
G. E. No.	Noark No.	Amperes.	Std. Pkg.	Price.
36093	2598	30	100	$ .18
36094	2599	60	100	.36

PLUGS, Gas Engine (see Plugs, spark).

PLUGS, Sealing (see Plugs, conduit).

PLUGS, Socket.

Weatherproof Socket Plug.

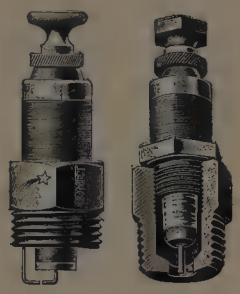

No. 5200.

This plug consists of a threaded porcelain plug provided with rubber gasket that will fit any Edison screw base socket or receptacle.

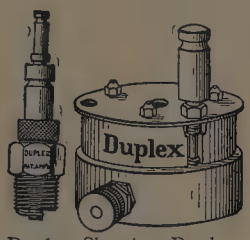
Especially useful at trolley parks, summer resorts, etc., when lamps are taken out for the winter, to make sockets watertight and prevent freezing and bursting.

	Std. Pkg.	
No. 5200. Paiste weatherproof socket plug	250	each, $ .05

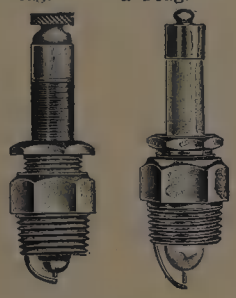
PLUGS, Skedoodle (see Lamps, incandescent).



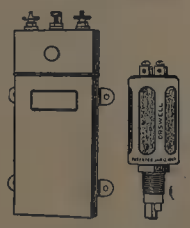
Open End Comet Spark Plug. Closed End Comet Spark Plug.



Duplex Spark Plug. Showing Duplex Attachment on a Plug.



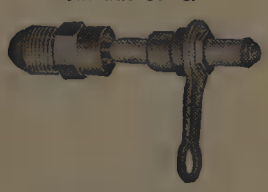
Dow Spark Plugs.



Orswell Vibrator and Plug.



Cadillac Cores.



Breech-Block Plug.

PLUGS, Spark.

Comet Spark Plugs.

In order to get absolute reliability in service the insulation of the Comet plugs is made with lengthwise mica three times as thick as ordinarily used and capped at the engine end with a steel cap for protection against oil. Made in two styles, open or closed end.

No. S-1825. Comet plug complete, ½ inch or 18 mm..... $1.50

Can be furnished in all standard sizes at corresponding prices.

Duplex Spark Plugs.

Especially designed for high compression engines, kerosene oil engines, or any others that are troubled by "sooting up." When the engine begins to miss, by pulling up a little switch on the top of the plug a condenser action is brought into play which insures perfect firing. The imported porcelain is baked forty hours and annealed to prevent cracking under rapid heating and cooling.

No. S-1826. Duplex plug complete, ½-inch size.....each, $2.00

Made for all styles of engines.

Duplex Plug Attachment.

The duplex attachment is a very simple device, easily attached to any plug. When the engine starts missing, pull the little switch without stopping your motor. A condenser action is brought into play that will cause the engine to fire perfectly, saving delay on the road.

No. S-1827. Duplex attachment only.....each, $2.50

Dow Spark Plugs.

These are high-grade plugs with double mica or porcelain insulation.

No. S-1828.	½-in.	Dow plug,	mica	insulation,	platinum	points, $2.00
,, S-1829.	½ ,,	,, ,,	porcelain	,,	,, ,,	2.00
,, S-1830.	½ ,,	,, ,,	mica	,,	Ger. silver ,,	1.00
,, S-1831.	½ ,,	,, ,,	porcelain	,,	,, ,,	1.00

Orswell Plug and Vibrator.

No large secondary coil is needed with this system, as the coil is contained in the plug. This plug will stand up immersed in water or oil and will not skip under the worst conditions.

No. S-1832. Orswell plug only.....each, $9.00
,, S-1833. ,, vibrator for same..... ,, 3.00

Cadillac Cores.

Sparking points are made of the best imported non-corrosive meteor wire. In use by the leading Cadillac agents of the United States.

No. S-1835. Cadillac cores only.....per pair, $1.50

Breech-Block Plug.

A separable plug in which the porcelain core is instantly removable by a fraction of a turn. The breech is fitted with triple thread, which permits placing the handle in any position. When the breech is open the whole inner end of the porcelain for 1 inch is exposed and may be quickly wiped clean with a piece of waste and returned in a few seconds.

The porcelain is held floating between flexible gaskets and not against unyielding walls. The joint between the breech and block is made on a thick soft copper gasket pressed tightly in place in a recess and seat ground in place. Will stand 2,000 pounds without showing a leak.

The holder locks in place. It cannot jar loose.

A terminal clip is furnished in place of a thumb nut with each plug.

No. S-1837. Breech-block plug, ½-in. and standard sizes $2.50



Sootless Plug.

PLUGS, Spark (Continued).

Sootless Spark Plugs.

The sootless plug combines all the good features of both the open and closed end Comet. The engine end has an additional protection of a porcelain capping so arranged and enclosed that there is no possible chance for breakage.

There is no asbestos packing to cause leakage of compression or disarrangement of the points. Has the additional features of a double explosion chamber with points extended well into the mixture, giving an extra hot spark just where it is needed. It is indestructible.

No. S-1838. Sootless spark plugs, ½ inch and 18 mm..... each, $1.75

Can be furnished in all standard sizes at corresponding prices.



Soot Proof Plug.

Soot-Proof Spark Plugs.

Soot-proof plugs have two inches of insulating surface between the outer shell and inner spindle, and will therefore continue to spark even if covered with soot, as the current prefers to jump the thirty-second of an inch gap rather than go over the surface of soot for more than one inch. Easily taken apart for cleaning.

No. S-1839.	Soot-proof spark plugs, ½ inch and 18 mm	each,	$1.00
,, S-1840.	Winton or extension types	,,	1.50
	Porcelain only	,,	.25
	Body ,,	,,	.20
	Spindle ,,	,,	.25
	Bushing ,,	,,	.10
	Cap nut ,,	,,	.05
	Lock nut ,,	,,	.05
	Asbestos packing	,,	.05
	Thumb nut	,,	.05
	Snap terminals	,,	.10
	,, ,,	per 100,	5.00



Sta-Rite Spark Plugs.

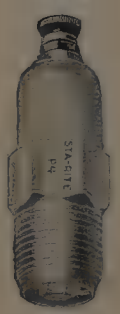
A spark plug having ample air space, self-packing joint, short protected point, greatest possible allowance for expansion and contraction by double porcelain or mica insulation, tension springs and asbestos-copper protected packings.

All steel parts finely finished with nickel copper plating.

No. 4. ½-inch Sta-Rite spark plug, porcelain or mica ..... each, $1.25
,, 6. 18-mm. (French metric) ditto ..... ,, 1.25

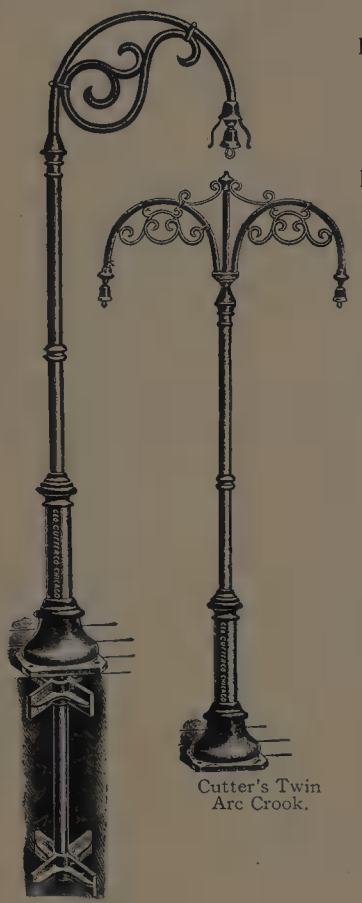
Can be furnished in all standard styles and sizes at corresponding prices.





Sta-Rite Plug.

PLUG Switches (see Switches).
PLUG Switch Panels (see Receptacles, flush).
PLUGS, Theatre (see Connectors and Receptacles).
PLUGS, Wood (see Plugs, attachment, and Plugs, conduit).
PLUGS and Receptacles (see R).
PLYERS (see Pliers).
POCKET, Stage (see Receptacles).
POCKET, Switch (see Switches, and Boxes, conduit).
POCKET Battery Gauge (see Ammeters and Voltmeters).
POKE Bonnet Reflectors (see Shades).
POLARITY Indicator (see I).
POLE Arc Fixtures (see Fixtures, pole and wall).
POLE Bands (see Clamps, pole).
POLE Changing Switch (see S).
POLE Counter (see C).
POLE Fixture, Safety (see Fixtures, pole and wall).
POLE Fixture, Pulley (see Fixtures, pole and wall).
POLE Insulators (see Insulators, feed wire).
POLE Locks (see L).
POLE Ratchet (see R).
POLE Steps (see S).
POLE Support (see S).



Cutter's Twin Arc Crook.

Cutter's Park Crook



Cutter's Street Crook.

Cutter's Platform Crook.

POLES, see following headings:

Poles, Arc and Incandescent
,, Iron and Wood.
,, Pike.
,, Trolley.

POLES, Arc and Incandescent.

Cutter's Arc Lamp Poles and Crooks.

Cutter's Park Crook.

An ornamental post fixture supporting a high voltage insulation 18 feet above the ground, making a light-weight fixture for use wherever the piping can be set down into the ground. The main piping extends 5 feet below the ground and is fitted with two pairs of anchor-plates which steady the fixture. Regularly made with the upright piping of 2½-inch bore, the bend of 1¼-inch bore, and cast-iron scroll ornamentation. The head-piece on the bend has porcelain bushings through which the wires are readily brought out to the lamp, while the high-voltage insulator insulates the frame of the lamp from the fixture.

No. S-1841. Cutter's park crook (complete, not wired), net, $19.50
,, S-1842. Same, without anchor plates ..... ,, 17.00

Cutter's Park Crane.

No. S-1843. Same as the above, but without the ornamentation .....net, $17.50

Cutter's Twin Arc Crook.

A somewhat similar fixture for supporting a pair of arc lamps. Has the same anchor arrangement, but lighter cast ornaments.

No. S-1844. Complete, with high-voltage insulators, net, $22.00

Cutter's Triple Arc Crook.

No. S-1845. Same as the twin arc crook, but with ornamented crooks for three-arc lamps..net,$24.50

Cutter's Quadruple Arc Crook.

No. S-1846. Same as the twin arc crook, but with ornamented crooks for four-arc lamps...net, $27.00

Cutter's Arc Lamp Poles and Crooks.

Cutter's Street Crook.

A firm, well-built street pole supporting a high-voltage insulator 18 feet above the street and 3 feet from pole. Column is built up of pipe, top crook 1¼-inch pipe, upper section 2½-inch pipe, and the middle section is of 4-inch pipe; cast-iron base has doors and supports of 4-inch pipe 5 feet long, to which is fastened the ground anchor plates, same as shown in Park Crook above, Provision is made in the top ground anchor plate for under-ground wiring. Doors are fastened with bolts unless otherwise ordered. Hinged doors no extra charge.

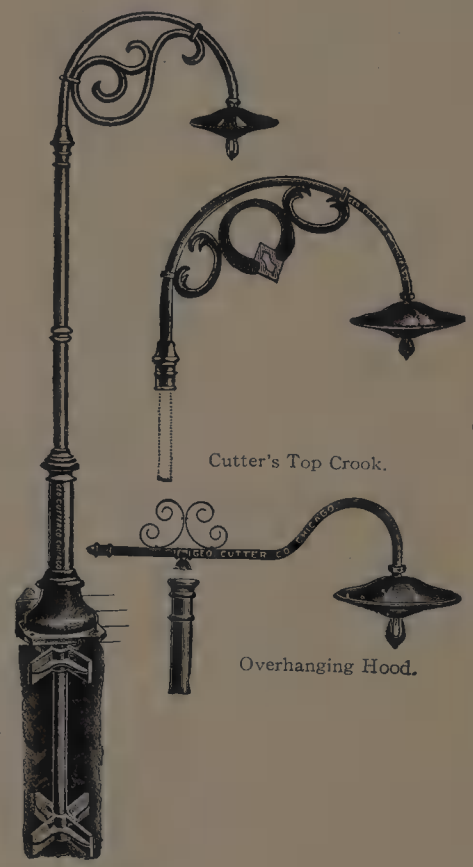
Iron insulator arm (removable pin) or ladder rest when ordered.

No. S-1847. Cutter's street crook .....net, $22.50
,, S-1848. ,, twin street crook ..... ,, 25.00
,, S-1849. ,, triple ,, ,, ... ,, 27.50
,, S-1850. ,, quadruple street crook ..... ,, 30.00

Cutter's Platform Crook.

A neat fixture for supporting incandescent lamps on depot platforms and the like. Base is bolted to floor. The lamp is held 8 feet above the floor and has Cutter's streethood to protect the socket and distribute the light evenly.

No. S-1851. With single Edison base socket .....net, $5.00
,, S-1852. Same, with 2 lights ..... ,, 5.25
,, S-1853. ,, ,, 3 ,, ... ,, 5.50
,, S-1854. ,, ,, 5 ,, ... ,, 6.00



Cutter's Top Crook.

Overhanging Hood.

Cutter's Driveway Crook.



Return Bend Hood.

Cutter's Lawn Crook.

POLES, Arc and Incandescent (Continued).

Cutter's Incandescent Lamp Poles and Crooks.

Cutter's Driveway Crook.

An ornamental fixture holding the lamp 14 feet above the ground. Piping extends below the ground to steady the fixture.

Complete with hood, reflector and socket. State base of socket wanted. With shank of 2½-inch (bore) pipe and bend of 1¼-inch (bore) pipe.

No. S-1855. Cutter's driveway crook....net, $20.00

Cutter's Driveway Crane.

Same as above without the ornamentation.

No. S-1856. Cutter's driveway crane....net, $18.00

Cutter's Top Crook.

No. S-1857. With fitting for iron pipe of 1¼-inch bore. Complete with hood, reflector, and socket, net, $3.00

Cutter's Top Crane.

No. S-1858. Same as the above without the ornamentation.....net, $2.00

Cutter's Overhanging Hood.

With 3-foot overhang and cap for 2½-inch (bore) iron pipe, or a wood pole trimmed to 3 inches at the top.

No. S-1859. With Edison base socket...net, $2.50
„ S-1860. With series nozzle..... „ 2.35

For longer overhang, add 7 cents per extra foot.

Cutter's Return Bend Hood.

No. S-1861. With cap for wood poles (as per cut).....net, $3.00
No. S-1862. With cap for iron pipe of 1¼-inch bore.....net, 2.25
„ S-1863. With cap for 2-inch pipe .. „ 2.30
„ S-1864. „ „ „ 2½ „ „ .. „ 2.35

Cutter's Lawn Crook.

A neat incandescent fixture for lighting lawns. Is made with from one to five lights. Crook is of 1¼-inch pipe and lower part of 2½-inch pipe, which extends into the ground and is fitted with anchor plates to hold it steady. Lights are held 9 feet above the ground.

No. S-1865.....Single light.....net, $8.00
„ S-1866.....2 lights..... „ 8.25
„ S-1867.....3 „ ..... „ 8.50
„ S-1868.....4 „ ..... „ 8.75
„ S-1869.....5 „ ..... „ 9.00



No. 1000.



No. 1022A. No. 1025. No. 1031.

POLES, Arc and Incandescent (Continued).

Lundin Arc Lamp Poles.

No.

1000. Complete with single goose neck and absolute cut-out for series or multiple lamps, each, $56.00

1020. Ditto, with double goose neck .....each, 76.00

1022A. Pole with single goose neck, each, 80.00

1022B. Same as 1022A, but with double goose neck, each, 96.00

1023. Pole with single goose neck, each, 90.00



No. 1020.



No. 1023. No. 1026. No. 1033.

1024. Same as 1023, but with double goose neck,each, 130.00

1025. Pole with single plain goose neck, each, 76.00

1026. Pole with single goose neck, each, 80.00

1031. Pole with single goose neck, each, 114.00

1033. Pole with single goose neck, each, 78.00

1035. Same as 1031 but with double goose neck, each, 150.00

POLES, Iron and Wood.



Poles.

Wood Poles.

We are prepared to quote prices on all sizes of cedar, chestnut, and hard pine poles, both in small lots and by the car load. In requesting prices, state point of delivery, as the freight often amounts to more than the cost of poles; also give length, size of top and size of butt.

Two-Section Iron or Steel Tubular Poles.

Sizes of Sections. Nom. Diameter in Inches. Std.	x Std.	x	25-ft. Poles. 17-ft. Bottom. 9½-ft. Top. Weight Lbs.	26-ft. Poles. 18-ft. Bottom. 9½-ft. Top. Weight Lbs.	27-ft. Poles. 19-ft. Bottom. 9½-ft. Top. Weight Lbs.	28-ft. Poles. 20-ft. Bottom. 9½-ft. Top. Weight Lbs.	29-ft. Poles. 20-ft. Bottom. 10½-ft. Top. Weight Lbs.	30 ft. Poles. 21-ft. Bottom. 10½-ft. Top. Weight Lbs.
3	2½		182.71	190.25	197.79	205.33	211.07	218.61
3		2½	247.12	257.37	267.62	277.87	285.54	295.79
3	2½		228.78	239.03	249.28	259.53	265.27	275.52
4	3		252.85	263.51	274.17	284.83	292.37	303.03
4		3	351.87	366.84	381.81	396.78	407.03	422.00
4	3		326.12	341.09	356.06	371.03	378.57	393.54
5	4		347.77	362.27	376.77	391.27	401.93	416.43
5		4	491.40	511.94	532.48	553.02	567.99	588.53
5	4		450.45	470.99	491.53	512.07	522.73	542.77
6	5		456.67	475.43	494.19	512.95	527.45	546.21
6		5	680.99	709.57	738.15	766.73	787.27	815.85
6	5		623.61	652.19	680.77	709.35	723.85	752.43
7	6		573.81	597.08	620.35	643.62	662.38	685.65
7		6	911.90	949.57	987.24	1024.91	1053.49	1091.16
7	6		818.61	856.28	893.95	931.62	950.38	988.05
8	7		700.13	728.31	756.49	784.67	807.93	836.11
8		7	1088.87	1131.87	1174.87	1217.87	1255.54	1298.54
8	7		952.07	995.07	1038.07	1081.07	1104.33	1147.33
9	8		840.61	874.31	908.01	941.71	969.89	1003.59
9		8	1228.75	1277.00	1325.25	1373.50	1416.50	1464.75
9	8		1087.96	1136.21	1184.46	1232.71	1260.89	1309.14
10	9		1000.15	1040.15	1080.15	1120.15	1153.85	1193.85
10		9	1380.63	1434.88	1489.13	1543.38	1591.63	1645.88
10	9		1242.40	1296.65	1350.90	1405.15	1438.85	1493.10

Price per pound on application.

POLES, Pike (see Supports).

Pike Poles, Never Break Brand.

Made from straight grain basswood. Pikes from crucible steel. Turned round.

No. 312	12-ft. pike pole	per doz.,	$13.30
,, 313	14 ,, ,, ,,	,,	14.25
,, 314	16 ,, ,, ,,	,,	15.20
,, 315	18 ,, ,, ,,	,,	16.65
,, 316	20 ,, ,, ,,	,,	18.55

Pike Poles, P-S Brand.

Made from natural wood, not turned. Extra heavy and strong.

No. S-1865	12-ft. pike poles	each,	$1.80
,, S-1866	14 ,, ,, ,,	,,	2.00
,, S-1867	16 ,, ,, ,,	,,	2.20
,, S-1868	18 ,, ,, ,,	,,	2.40
,, S-1869	20 ,, ,, ,,	,,	2.60



Pike Pole.

POLE Steps (see S).

POLES, Trolley.

Trolley Poles.

This pole is unique in construction, in view of the fact that it does not bring the fibre of the pole laterally under stress, but the strain is divided throughout the entire pole. Tests have proven that this adds to the strength of the pole over 100 per cent.

The poles are as flexible as necessary and are very resilient, but tough.

		Weight, Lbs.	
No. S-1870.	12-ft. reënforced trolley poles	21¼	each, $3.08
,, S-1871.	13 ,, ,, ,, ,,	23	,, 3.20
,, S-1872.	14 ,, ,, ,, ,,	24¾	,, 3.48
,, S-1873.	15 ,, ,, ,, ,,	26½	,, 3.68
,, S-1874.	16 ,, ,, ,, ,,		,, 3.84

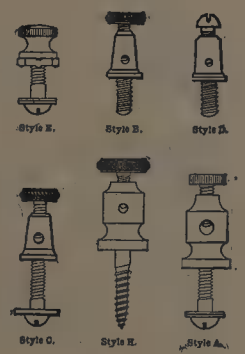
Furnished without reënforcement if desired.

POLE Tops (see Hoods).
POLISHING Outfits (see Motors).
PONY Insulators (see Insulators, glass).
POPPERS, Corn.

G. E. Corn Poppers.

No. 45027	300 watts,	95–105 volts	each, $10.00
,, 45028	300 ,,	106–115 ,,	,, 10.00
,, 45029	300 ,,	116–125 ,,	,, 10.00
,, 45030	300 ,,	200–225 ,,	,, 10.00
,, 45031	300 ,,	226–250 ,,	,, 10.00

PORCELAIN Bases (see Blocks, switch, and Blocks, moulding).
PORCELAIN Cleats, Tubes, etc. (see C, T, etc.).
PORCELAIN Shades (see S).
PORCELAIN Sockets (see S).
POROUS Cups (see C).
PORTABLE Plate Warmer (see Warmer).
POST Hole Auger (see A).
POSTS, Binding.



Binding-Posts (see also Connectors).

Heavily nickeled and highly polished.

Style A.	Binding-post	each, $ .12
,, B.	,, ,,	,, .08
,, C.	,, ,,	,, .08
,, D.	,, ,,	,, .07
,, E.	,, ,,	,, .08
,, F.	,, ,,	,, .25
,, H.	,, ,,	,, .12
,, J.	,, ,,	,, .20
,, K.	,, ,,	,, .10

POTASH.

Bichromate of Potash, No. S-1875.

In the crystal form, for use in various styles of batteries, per lb., $ .40

POTENTIAL Indicator (see Voltmeters).
POTS, see following headings:

Pots, Coffee.
,, Gasoline (see Torches).
,, Glue.
,, Melting.
,, Pitch (see Kettles).
,, Sealing Wax.
,, Solder.
,, Tea.

POTS, Coffee (see also Urns and Percolators).

Spray Coffee Pots.

Made of copper, nickel plated. A distinct feature of these is that the vessel is instantly removable from the heater, leaving the latter available for many other uses.

		Watts.	Price.
No. 1260.	2-pt., plain stove, cord and plug	300	$9.25
,, 1261.	3 ,, ,, ,, ,, ,, ,,	300	9.75
,, 1262.	4 ,, ,, ,, ,, ,, ,,	300	10.50
,, 1263.	5 ,, ,, ,, ,, ,, ,,	300	11.50
,, 1265.	3 ,, ornamental stove, cord and plug	300	11.25
,, 1266.	4 ,, ,, ,, ,, ,, ,,	300	12.00
,, 1267.	5 ,, ,, ,, ,, ,, ,,	300	13.00



No. 1261.

POTS, Coffee (Continued).



Coffee Pots.

Coffee Pots (without heaters).

As shown, these are the conventional form of plain coffee pots, thoroughly well made of heavy copper nickel plated — arranged to lock in place on the plain stoves (see Stoves).

	Price.
No. 0765. 1½ pts. Coffee pot. Fits stoves Nos. 1701 and 1731,	$2.50
,, 0766. 2 qts. Same. Fits stoves Nos. 1702 and 1732,	3.25
,, 0767. Same. Fits stoves Nos. 1703 and 1733.....	4.75
,, 0767. 3½ qts. Same. Fits stoves Nos. 1703 and 1733,	4.75

POTS, Gasoline (see Torches).

POTS, Glue.

Glue Pots.

Made entirely of burnished copper, and will last indefinitely. The water bath contains a relatively small amount of water, which is automatically replenished from a reservoir. Heated by coil heater, arranged to give three divisions of heat. The maximum to be used to quickly heat the glue, and the minimum is usually sufficient to maintain the glue at the proper consistency.

All pots are supplied with three-heat regulators, and 4 feet of cord; no plug.



No. 403.

	Watts Required. Min.	Med.	Max.	Price.
No. 403. 1 pt., with reservoir.....	85	175	330	$13.50
,, 404. 1 qt., ,, ,, ...100	220	440		14.50
,, 405. 2 ,, ,, ,, ...170	330	660		16.00
,, 406. 1 gal., ,, ,, ...275	550	1100		22.25

In addition to glue pots with reservoirs, we furnish them without reservoirs. The inner and outer pot is of heavy copper with coiled copper heater, being in every way as substantial and durable as it is possible to construct such a device.

	Watts Required. Min.	Med.	Max.	Price.
No. 407½. 1 pt.....	110	220	440	$11.00
,, 408. 1 qt.....	170	330	660	12.00
,, 409. 2 ,, ...	220	440	880	13.50

Cast iron stands, 50 cents list each, extra.

G. E. Glue Pots.



G. E. Glue Pot.

No. 41597. 1 qt.	85 watts,	95–125 volts.....	each,	$13.00
,, 43495. 1 ,,	85 ,,	200–225 ,, ...	,,	14.50
,, 43496. 1 ,,	85 ,,	226–250 ,, ...	,,	14.50
,, 41598. 2 ,,	115 ,,	95–125 ,, ...	,,	15.00
,, 43497. 2 ,,	115 ,,	200–225 ,, ...	,,	16.50
,, 43498. 2 ,,	115 ,,	226–250 ,, ...	,,	16.50
,, 41599. 4 ,,	185 ,,	95–125 ,, ...	,,	21.00
,, 43499. 4 ,,	185 ,,	200–225 ,, ...	,,	22.50
,, 43500. 4 ,,	185 ,,	226–250 ,, ...	,,	22.50

POTS, Melting.

Melting Pots.

Cast iron melting pots, with wrought iron bail.



Melting Pot.

No.		Deep.	Weight.	Hold.	Each.
S-1876.	5 in. outside diam.	3¾ in.	3¾ lbs.	10 lbs....	$ .60
S-1877.	6 ,, ,, ,,	4 ,,	7¼ ,,	15 ,, ...	.95
S-1878.	8 ,, ,, ,,	4¾ ,,	10½ ,,	35 ,, ...	1.65
S-1879.	9 ,, ,, ,,	5½ ,,	11½ ,,	45 ,, ...	2.00
S-1880.	10½ ,, ,, ,,	5¾ ,,	21½ ,,	70 ,, ...	2.75
S-1881.	12 ,, ,, ,,	8¼ ,,	26 ,,	135 ,, ...	4.00
S-1882.	13½ ,, ,, ,,	7 ,,	38 ,,	160 ,, ...	5.25

POTS, Pitch (see Kettles).

POTS, Sealing Wax.

Sealing Wax Pots.

Pots are of spun copper, nickel plated and polished, are provided with regulating switches and 4 feet of cord. The maximum current is only required for first melting, and the low current, about one-fourth of the maximum, will keep wax at proper consistency.



No. 1715.

	Watts.	Price.
No. 1715. Capacity, ½ pt. Four heats. Complete with cord, plug, and switch.....	175	$8.00
,, 1716. Capacity, 1½ pts. Four heats. Complete with cord and switch; no plug...	300	12.00

POTS, Solder.

Solder Pots.

The electrically heated pots are arranged so that in starting the metal can be quickly melted, then the current reduced to maintain a uniform temperature at any suitable point. They are specially useful for tinning the ends of wire and other small articles in electric repair shops.



No. 1719.

	Watts Required. Min.	Med.	Max.	Price.
No. 1718. Solder pot, 4 pounds capacity. Can be operated from lamp socket. Low heat for working temperature; maximum for quick heating. Complete with cord, plug, and switch..	100	150	200	$8.00
No. 1719. Solder pot, 10 pounds capacity. Should not be operated from lamp socket. Low heat for working temperature; maximum for quick heating. Cord and switch; no plug.....	200	300	440	12.00

POTS, Tea (see Biggin).

Tea Pots.



Tea Pot.

When the pot is removed, the stove is available for other purposes. The stove is fitted with a patent locking device for fastening the kettle in place by a simple lever movement, which permits instant locking or releasing.

	Watts.	Price.
No. 1255. One quart kettle, heater 4½ inches diameter, three heats, nickel plated..	250	$12.00
No. 1256. One quart, same, silver plated.....	250	18.00
,, 0255. Same, tea pot only, nickel-plated, no heater.....		3.50

POWDERED Soapstone (see S).
PRESSELLE (see Pushes, wood).
PRESSING Irons (see I).
PROTECTING Sleeves (see S).
PROTECTOR, Trolley Rope (see Guards, water).
PULLS, Bell (see Attachment).
PULLEY (see Blocks).
PULLEYS, see following headings :

Pulleys, Arc Lamp
,, Cord (see Trimmings, car).
,, Cutter's cut-out (see Cut-Outs, arc).



Cutter's Lamp-Supporting Pulley.



Knob alone with High Voltage Insulator.

PULLEYS, Arc Lamp.

Cutter's Lamp-Supporting Pulley

Holds the lamp when raised and releases it when about to be lowered. Has a long swivel clamp to fit any size suspension wire or cable, and a malleable iron knob to hold the lamp. On raising the lamp this knob is engaged by ridges on the sides of the pulley and takes all strain off the rope. Another pull at the rope guides the knob out so that the lamp can readily be lowered.

The action is entirely automatic; you pull the rope till it reaches a dead stop and the pulley does the rest. There are no extra catches or fingers to bend out of shape or bind on the casing, or to get clogged with sleet. It is the only weatherproof safety pulley that works every time.

Made of malleable iron with wrought-iron hook. Clamps any size rope up to ½ inch.

No. S-1885. Complete with clamp knob.....net, each, $ .80
,, S-1886. Extra clamp knob..... ,, ,, .15

Cutter's Lamp-Supporting Pulley with Triple Insulation Arm.

No. S-1887. Complete with arm fitted direct to pulley knob.....net, each, $1.55
No. S-1888. Knob alone with triple insulation arm, ,, ,, .90

Cutter's Lamp-Supporting Pulley with High Voltage Insulator.

No. S-1889. Price.....net, each, $1.30
,, S-1890. Knob alone with high-voltage insulator..... ,, ,, .65



Knob alone with Triple Insulation Arm.

PULLEYS, Arc Lamp (Continued).

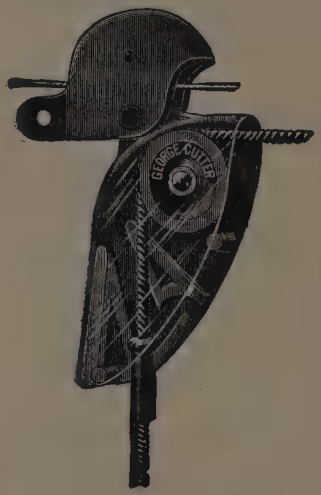


Cutter's Inner-Rope Pulley.

Cutter's Inner-Rope Pulley.

A lamp-supporting pulley with a hooded end clamp for use with mast-arms in which the rope runs through the iron pipe.

		Net, Each.
No. S-1891.	Complete with clamp knob for 1¼-inch (bore) pipe	$1.00
No. S-1892.	Same for 1½-inch (bore) pipe	1.00
,, S-1893.	Same for 1¼-inch (bore) pipe with triple insulation arm fitted to pulley knob	1.75
No. S-1894.	Same for 1½-inch pipe	1.75

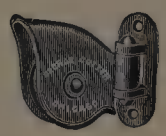


Cutter's Running Pulley.

Cutter's Running Pulley

Is a form of the lamp-supporting pulley with a "traveler" top, which runs on the suspension wire or cable and allows the lamp to be lowered close to the pole without interfering with trolley or guard wires. The clamp-stop furnished with it keeps the lamp and hood from striking the pole; this stop can be set at any desired distance from the pole.

		Net, Each.
No. S-1895.	Complete with clamp knob and clamp stop	$1.20
,, S-1896.	Same, with triple insulation arm fitted direct to knob	1.95
No. S-1897.	Same, with clamp-knob, clamp-stop, and pair of swivel-pole pulleys	2.00
No. S-1898.	Same, with triple insulation arm	2.75
,, S-1899.	Same, with Midget changeable pulley and duplex pole pulley. This combination brings the pull-over rope back to the same pole with the hoisting rope, so that the trimmer need not cross the street.	2.35
No. S-1900.	Same, with triple insulation arm	3.10



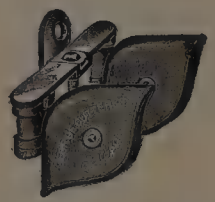
Cutter's Swivel Pole Pulley.

Cutter's Swivel Pole Pulley

Is swiveled so that it can swing sideways and keep in line with the hoisting rope.

Weatherproof, and the only pole pulley made with an unbreakable pole plate.

No. S-1901. Price.....net, each, $ .40



Cutter's Duplex Pole Pulley.

Cutter's Duplex Pole Pulley

Consists of a pair of Cutter's swivel pole pulleys fastened to a single malleable iron pole-plate. Just the thing for use with Cutter's running pulley.

No. S-1902. Pulley.....net, each, $ .80



Cutter's Medium Pulley.

Cutter's Medium Pulley.

A center suspension pulley with long supporting clamp and weatherproof casing, but with no safety features. Takes any size of rope up to ½ inch in diameter, and is second only to Cutter's lamp-supporting pulley.

No. S-1905. Cutter's medium pulley .....net, each, $ .40



Cutter's Interchangeable Pulley.

Cutter's Interchangeable Pulley.

A weatherproof pulley, with a universal clamp which will grip any standard size of suspension wire or cable. By taking out the two bolts the clamp can be opened out so as to form a wall plate which fits the curved surface of a pole and which is easily fastened in place by lag screws. When so used it makes a swiveled pole pulley similar in action to Cutter's swivel pole pulley.

The clamp is made of malleable iron and the whole is the only all-round pulley made.

No. S-1906. Cutter's interchangeable pulley, net, ea., $ .40

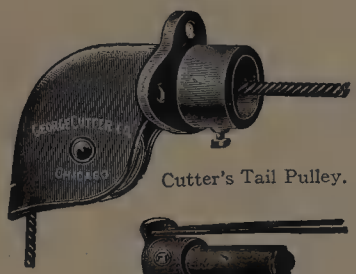
PULLEYS, Arc Lamp (Continued).



Cutter's Sleeve Pulley.

Cutter's Sleeve Pulley.

No. S-1907. A weatherproof pulley with a clamp to grip ¾-inch (bore) pipe.....net, each, $ .50



Cutter's Tail Pulley.

Cutter's Tail Pulley.

A weatherproof pulley for use with inner rope mast-arms.

No. S-1908. For 1¼-inch (bore) iron pipe.....net, each, $ .50
,, S-1909. Same, for 1½-inch (bore) pipe.... ,, .50

Cutter's Plain End Pulley.

No. S-1910. A weatherproof pulley with a headpiece to fit iron mast-arm pipes, 1¼-inch (bore), net, each, $ .50
No. S-1911. For 1½-inch (bore) pipe..... ,, .50



Cutter's Plain End Pulley.

Cutter's Plain Roof Pulley.

Cutter's Plain Roof Pulley.

Companion to Cutter's ceiling pulley. A weatherproof pulley with ceiling plate.

No. S-1912. Cutter's plain roof pulley.....net, each, $ .50

Cutter's Mast-Arm Pulley.

A modification of the lamp-supporting pulley for use with the standard mast-arms. Has an extra strong single piece clamp which fits the iron pipe and which also forms the headpiece, so that the strain rods can be run direct to it.

No. S-1915. Cutter's mast-arm pulley for 1¼-inch (bore) iron pipe, with clamp knob..... $ .90
No. S-1916. Same, for 1½-inch (bore) pipe..... .90
,, S-1917. Cutter's mast-arm pulley, for 1¼-inch pipe, with triple insulation arm..... 1.65
No. S-1918. Same, for 1½-inch (bore) pipe..... 1.65

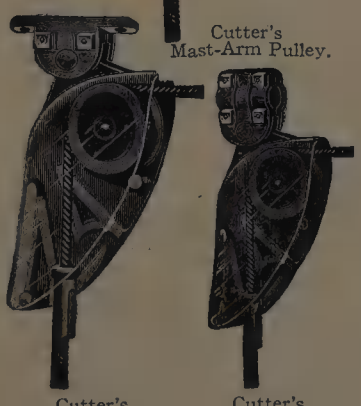


Cutter's Mast-Arm Pulley.

Cutter's Outrigger Pulley.

Another form of the lamp-supporting pulley, with a clamp to fit the standard outrigger pipes (iron pipe of ¾-inch bore).

No. S-1919. Outrigger pulley complete, with clamp knob..... $ .80
No. S-1920. Same, with high voltage cross arm..... 1.50
,, S-1921. ,, ,, triple insulation arm..... 1.55



Cutter's Ceiling Pulley.

Cutter's Outrigger Pulley.

Cutter's Big Pipe Outrigger Pulley.

No. S-1922. Similar to above, for 1½-inch (bore) pipe, with clamp knob..... $ .90
No. S-1923. Same, for 1¼-inch (bore) pipe..... .90
,, S-1924. ,, ,, 1 ,, ,, ,, ... .90
,, S-1925. Same, for 1¼-inch (bore) pipe, with triple insulation arm..... 1.65
No. S-1926. Same, for 1½-inch (bore) pipe, with triple insulation arm..... 1.65
No. S-1927. Same, with 1-inch (bore) pipe, with triple insulation arm..... 1.65

Cutter's Ceiling Pulley.

No. S-1928. For use on bridges, or under beams in shops and yards, etc., with lamp-supporting clamp knob..... $ .90
No. S-1929. Same, with triple insulation arm..... 1.65
,, S-1930. ,, ,, high voltage cross arm..... 1.60

PULLEYS, Arc Lamp (Continued).



No. 950A. No. 950B. No. 950C. No. 950D.

Fletcher's Automatic Suspension Pulleys.

The automatic parts are operated by gravity only. No springs or grooves to become rusty.

No. 950A. With plain hook, takes ½-inch rope or ¼-inch flexible iron rope, each, $ .90
No. 950B. With insulated hook, takes ½-inch rope or ¼-inch flexible iron rope, each, 1.00
No. 950C. With insulated snap hook, takes ½-inch rope or ¼-inch flexible iron rope ..... each, 1.20
No. 950D. With insulated spring hook, takes ½-inch rope or ¼-inch flexible iron rope ..... each, 1.10



1950E. 1950F. 1950G. 1950H.

Fletcher's Jumbo Suspension Pulleys.

These are similar to the above, but larger.

No. 1950E. With plain hook, takes ¾-inch rope ..... each, $1.20
No. 1950F. With insulated hook, takes ¾-inch rope ..... each, 1.50
No. 1950G. With insulated spring hook, takes ¾-inch rope ..... each, 1.55
No. 1950H. With insulated snap hook, takes ¾-inch rope ..... each, 1.60

Fletcher's Automatic Suspension Pulleys.

With Clamp for Gas Pipe.

No. 961-1. With clamp to fit 1 inch (inside diam.), 1.315 inch (outside diam.), gas pipe.
No. 961-1¼. With clamp to fit 1¼ inch (inside diam.), 1.66 inch (outside diam.), gas pipe.
No. 961-1½. With clamp to fit 1½ inch (inside diam.), 1.90 inch (outside diam.), gas pipe.

NOTE. — Measurements of iron pipes are always given by inside diameters. Please note this and order No. 961 Pulleys in accordance with our measurements above given.

Prices same as 950A, B, C, D, according to hook used.



No. 961. No. 963.

With Overhead Clamp.

No. 963. With clamp to go against ceiling or overhead beam.
Prices same as above.



No. 951A.

Fletcher's Traveling Suspension Pulleys.

With automatic sustaining device. Price includes double wheel pole pulley and automatic traveling pulley and a small centre pulley, making a complete set.

Draws lamp from centre of street and lowers it near pole.

Set No. 951A. With malleable hook $1.50
,, ,, 951B. ,, insulating ,, ... 1.80
,, ,, 951C. ,, ,, snap hook 2.00
,, ,, 951D. ,, ,, spring ,, ... 1.90

Fletcher's Sleet-Proof Pole Pulleys.

No. 929. Fletcher's Midget pole pulley, for ¼-inch rope ..... each, $ .30
No. 939. Fletcher's medium pole pulley, for ½-inch rope ..... each, .42
No. 938. Fletcher's Jumbo pole pulley, for 1-inch rope ..... each, .90
No. 940. Fletcher's swivel pole pulley, for ½-inch rope ..... each, .42
No. 941. Fletcher's swivel pole pulley, for 1-inch rope ..... each, 1.00
No. 942. Fletcher's swivel pole pulley (2 wheels) ..... each, .60
No. 943. Fletcher's riveted swivel pole pulley, each, .40



No. 929. No. 940-1. No. 942.



No. 960.



No. 953.



No. 956.



No. 957.

PULLEYS, Arc Lamp (Continued).

Fletcher's Sure-Grip Pulleys.

Lamp hanger is not a requisite part of arrangement and is only furnished when specially ordered.

No. 960. Pulley takes ½-inch rope.....each, $1.60

Fletcher's Sleet-Proof Pulleys.

No. 954. Midget pulley, takes ¼-inch rope, for incandescent lamps only, each, $ .60
No. 953. Medium pulley, takes ½-inch rope or ¼-inch flexible iron cord.....each, .85
No. 955. Jumbo pulley, takes 1-inch rope, each, 1.20
No. 956. Duplex pulley, takes ½-inch rope, each, 1.20
No. 957. Twin pulley, takes ½-inch rope, ,, 1.00

PULLEYS, Cord (see Trimmings, car).

PULLEYS, Cutter's Cut-Out (see Cut-Outs, arc).

PULL-UP Blasting Dynamo (see D).

PULL Sockets (see S).

PULPIT Hoods (see Shades).

PUNCHES.

Visible Die Punches.

The dies in the new improved visible die punches are made from the very best steel. The fronts will not break off.

Finish, nickeled and polished.

Send for list of dies.

No. S-1935. Visible die punches, assorted dies.....per doz., $24.00
No. S-1936. Same, with long reach (1½ in.), per doz., 26.00



Visible Die Punch.

Eureka Punches.

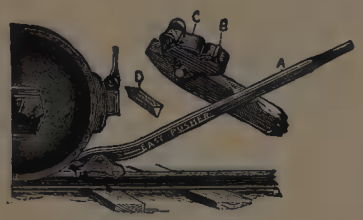
Similar in every way to the visible die punches, but made of somewhat cheaper materials.

No. S-1937. Eureka punches, assorted dies, per doz., $18.00

PUSHER, Car.

The Easy Car Pusher.

No. S-1938. A strong and powerful car pusher, working with great ease. Will move twice as many cars as most pushers.....each, $5.00
No. S-1939. Extra spurs..... ,, .25

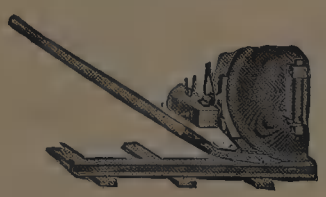


Easy Car Pusher.

Atlas Car Mover.

Will move a car farther at a stroke and with less effort than any other. Gets under the lowest brakes.

No. S-1940. Complete.....each, $5.00
,, S-1941. Extra spurs..... ,, .25



Atlas Car Mover.

PUSHES, see following headings:

Pushes, Desk and Name Plate.
,, Floor.
,, Round Metal.
,, Rectangular Plate.
,, Square Flush.
,, Watertight.
,, Watchman's Key.
,, Wood.
,, Anti-Wood.

PUSHES, Desk and Name Plate.

Noscru Desk Pushes.

These pushes can be instantly connected without screws. Simply peel the end of the wires, thread them through the horizontal holes in the button,

(*Continued on next page.*)



Noscru, Sr.



Noscru, Jr. Pee-Wee.

PUSHES, Desk and Name Plate.

Noscru Desk Pushes (Continued).

and bend over the ends. No exposed contact parts. Unaffected by dampness.

No. S-1942. Pee-Wee, pearl centres, for ⅜-in. hole.....each, $ .25
No. S-1943. Noscru, Jr., pearl centres, for ⅝-in. hole.....each, .25
No. S-1944. Noscru, Jr., celluloid centres, for ⅝-in. hole.....each, .25
No. S-1945. Noscru, Sr., pearl centres, for ¾-in. hole.....each, .35
No. S-1946. Noscru, Sr., celluloid centres, for ¾-in. hole.....each, .25

Packed 1 dozen in a box.



P. H. & R. Push.



Workrite Push.

P. H. & R. Desk Push.

One of the best and strongest desk pushes made. Made in two sizes, ⅝ inch and $\frac{11}{16}$ inch in diameter. Regular finish, nickel plated or old brass.

No. D-33. Desk push, either size.....each, $ .24
Oxidized copper finish..... ,, .26

Workrite Desk Push.

The button with the long wiping contacts. Will not get out of order. Nickel and old brass finishes. Special finishes to order. Fits ½-inch hole. Each.

No. S-1947. Workrite push only..... $ .36
,, S-1948. Ditto on plate, 1½ x 1½ x ⅛ plate.. .60
,, S-1949. ,, ,, ,, 3¼ x 1½ x ⅛ ,, .. .80



Hub Push.



No. 3 Hub Push.

Hub Pushes.

These pushes fit a ½-inch hole. Nickel finish, with black centre.

No. 1. Hub push.....each, $ .24
,, 5. ,, ,, with binding-posts..... ,, .30
,, 3. ,, ,, ,, escutcheon..... ,, .30
,, 7. ,, ,, ,, ,, and binding-posts.....each, .36
Extra for pearl centres..... ,, .06
No. 8. Hub push, for ⅝-inch hole, black composition centres.....each, .30
Extra for pearl centres..... ,, .06



Desk Push.



Name Plate for Desk Push.

Desk Push.

This push fits a ⅝-inch hole. Nickel or brass finish, with pearl centre and spring retaining clips. Electrodes do not stick and centres will not loosen.

No. 22357. Desk push, pearl centre.....each, $ .24
,, 22358. Ditto, black composition cen. ,, .20
,, 22359. ,, white celluloid centre.. ,, .20
,, 22554. N. P. name-plate for same... ,, .04
,, 22360. Stamping extra.....per button, .04



Junior Push.



Mite Push.

Junior Push.

A nickel finish push with pearl centre and spring retaining clips and binding-posts.
Fits a ⅝-inch hole.

No. 22368. Junior push.....each, $ .30

Mite Push.

A nickel finish push with pearl centre and spring-retaining clips to fit a ½-inch hole.

No. 22369. Mite push.....each, $ .18



No. 21.



No. 25740.



No. 25741.



Plain Floor Push.



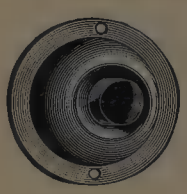
Combination Floor Push.



Dandy Floor Push.



Ansonia Combination Floor Push.



Nos. 25575, 25576.



No. 25577.

PUSHES, Desk and Name Plate (Continued).

No. 21 Name Plate Push.

A nickel plated push and card rack with desk push and isinglass complete. Size, 2¾ x 3½ inches. Without stamping....each, $ .30
Stamped with one figure..... ,, .36

No. 25740 Name Plate Push.

Cast bronze, size 3¼ x 2 inches, name panel opening 1⅜ inches, standard centres, fibre backs, German silver springs, loose back.

Bronze name plate push.....each, $ .46
Oxidized finish..... ,, .50

No. 25741 Name Plate Push.

Cast bronze, size 3 x 2¼ inches, name panel opening, 1¾ inches, standard centres, fibre backs, German-silver springs, screw cap.

Bronze name plate push.....each, $ .55
Oxidized finish..... ,, .60

PUSHES, Floor.

Plain Floor Pushes.

The plunger of this floor push goes all the way through. It cannot, therefore, get clogged with dirt. Nickel finish.

No. S-1950. Plain floor push..... each, $ .40

Combination Floor Push.

This push can be used as either a plain foot push or as a combination push with cord running up to edge of table, where a pear push can be hung within reach of the hand.

No. S-1951. Complete, nickel plated, without cord.....each, $ .60

Dandy Floor Push.

This push is so constructed that the plunger may be pushed through the rug into the receptacle in the floor. It has a strong, heavy top, so shaped that a table will easily roll over it without injury. A plain plug is also furnished, so that it may be used either as an ordinary foot push or as a combination push with extension cord.

No. 45722. Complete with two plugs, without cord..... $1.30
No. 45724. Complete with cord and table clamp..... 2.70

Ansonia Combination Floor Push (see Clamps).

Consisting of floor receptacle plug cord and table clamp complete, ready for use. Six feet of stranded twin conductor furnished.

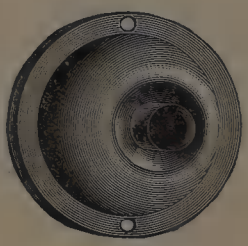
No. 576. Combination complete.. each, $2.00

PUSHES, Round Metal.

Round Metal Pushes.

No.		Per Doz.
25575.	Wrought bronze metal push ...	$2.16
25576.	Cast ,, ,, ,, ...	2.64
	Size, 1¾ in.; loose fibre back. German-silver springs. Oxidized finish, 10% extra.	
25577.	Wrought bronze metal push....	2.16
	Size, 1¾ in.; loose fibre back. German-silver springs. Oxidized finish, 10% extra.	

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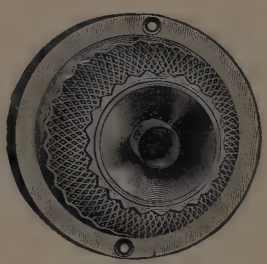
No. 25579.



Nos. 25585. 25586.



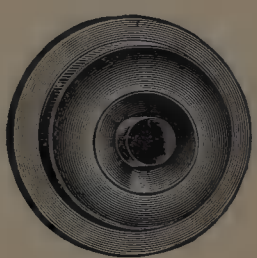
Nos. 25587, 25588.



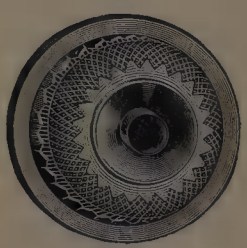
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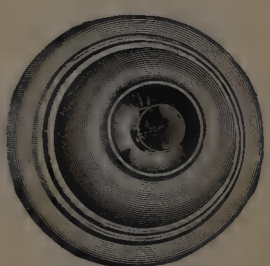
No. 25625.



No. 25651.



No. 25690.



No. 25701.



No. 25702.

PUSHES, Round Metal.

Round Metal Pushes

(Continued).

No. — Per Doz.

25578. Wrought bronze metal push . . . $ 2.16
Size, 2⅜ in.; loose fibre back.
German-silver springs.
Oxidized finish, 10% extra.

25579. Wrought bronze metal push. . . . 2.16
Size, 2⅜ in.; loose fibre back.
German-silver springs.
Oxidized finish, 10% extra.

25585. Wrought bronze metal push . . . 2.16

25586. Cast ,, ,, ,, . . 3.30
Size, 2⅜ in.; loose fibre back.
German-silver springs.
Oxidized finish, same price as No. 25586.

25587. Wrought bronze metal push . . . 2.16

25588. Cast ,, ,, ,, . . . 3.30
Size, 2⅜ in.; loose fibre back.
German-silver springs.
Oxidized finish, same price as No. 25588.

25607. Cast bronze metal push 4.00
Size, 2½ in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

25625. Cast bronze metal push 3.30
Size, 2¼ in.; loose fibre back.
German-Silver springs.
Oxidized finish, same price.

25651. Cast bronze metal push 5.56
Size, 2⅜ in.; screw cap, fibre back.
German-silver springs.
Oxidized finish, 10% extra.

25690. Cast bronze metal push 5.56
Size, 2¼ in.; screw cap, fibre back.
German-silver springs.
Oxidized finish, 10% extra.

25701. Wrought bronze metal push . . . 3.60
Size, 2⅜ in.; screw cap, fibre back.
German-silver springs.
Oxidized finish, same price.

25702. Wrought bronze metal push . . . 3.60
Size, 2⅜ in.; screw cap, fibre back.
German-silver springs.
Oxidized finish, same price.

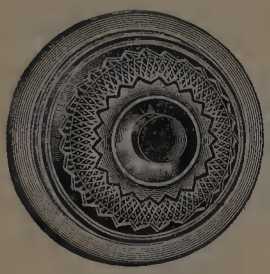
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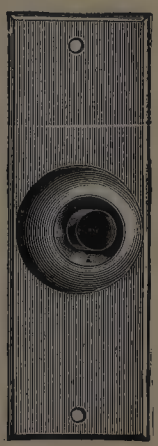
No. 25704.



No. 25705.



No. 25706.



No. 25750.



No. 25753.



No. 25753¼.



No. 25755.

PUSHES, Round Metal.

Round Metal Pushes (Continued).

No. — Per Doz.

25703. Wrought bronze metal push . . . $3.60
Size, 2⅜ in.; screw cap, fibre back.
German-silver springs.
Oxidized finish, same price.

25704. Wrought bronze metal push . . . 3.60
Size, 2⅜ in.; screw cap, fibre back.
German-silver springs.
Oxidized finish, same price.

25705. Wrought bronze metal push . . . 3.60
Size, 2⅜ in.; screw cap, fibre back.
German-silver springs.
Oxidized finish, same price.

25706. Wrought bronze metal push . . . 3.60
Size, 2⅜ in.; screw cap, fibre back.
German-silver springs.
Oxidized finish, same price.

PUSHES, Rectangular Plate.

Rectangular Plate Metal Pushes.

Per Doz.

25750. Wrought bronze metal push $4.80
Size, 4⅛ x 1⅜ in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

25753. Wrought bronze metal push . . . 4.80
Size, 4 x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

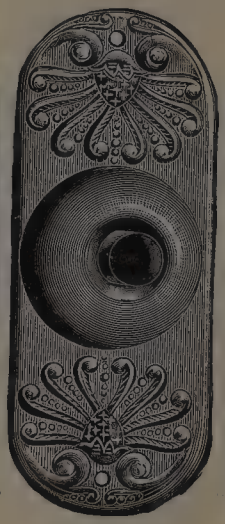
25753¼. Wrought bronze metal push, Doctor's Bell 4.80
25753½. Wrought bronze metal push, Janitor's Bell 4.80
25753¾. Wrought bronze metal push, Night Bell 4.80
Size, 4 x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

25755. Wrought bronze metal push 4.80
Size, 4 x 2 in., loose fibre back.
German-silver springs.
Oxidized finish, same price.

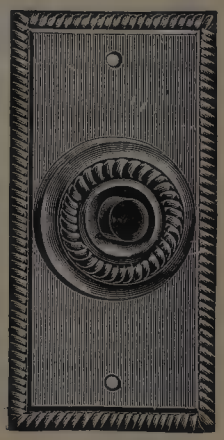
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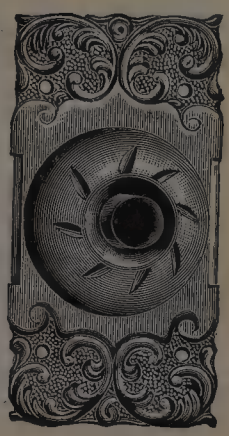
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No. 25765.



No. 25770.



No. 25775.



No. 25780.



No. 25785.



No. 25790.



No. 25791.

PUSHES, Rectangular Plate.

Rectangular Plate Metal Pushes (Continued).

Per Doz.

No. 25760. Wrought bronze metal push..... $4.80
Size 4¾ x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25761. Wrought bronze metal push..... 4.80
Size, 4¾ x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25765. Wrought bronze metal push..... 4.80
Size, 4 x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25770. Wrought bronze metal push..... 4.80
Size, 4 x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25775. Wrought bronze metal push..... 4.80
Size, 4 x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25780. Wrought bronze metal push..... 4.80
Size, 4 x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25785. Wrought bronze metal push..... 4.80
Size, 5¼ x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25790. Wrought bronze metal push..... 4.80
Size, 5¾ x 2½ in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

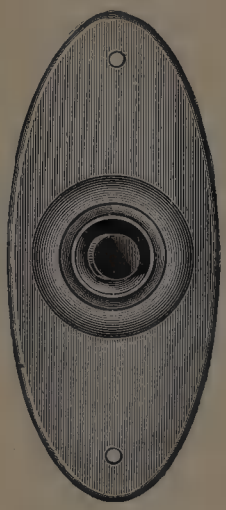
No. 25791. Wrought bronze metal push..... 4.80
Size, 5¾ x 2½ in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

(*Continued on next page.*)

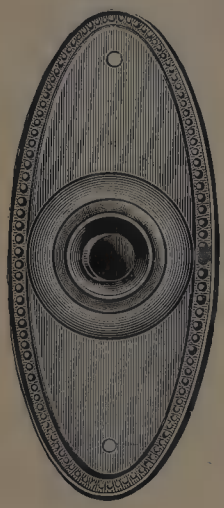
PUSHES, Rectangular Plate.



No. 25792.



No. 25793.



No. 25794.



No. 25795.



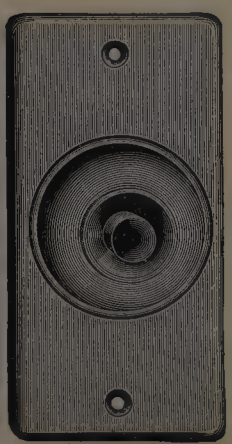
No. 25796.



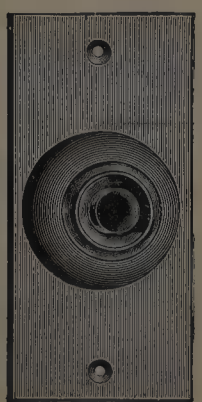
No. 25797.



Nos. 25814 and 25815.



No. 25818.



No. 25825.

Rectangular Plate Metal Pushes
(Continued).

Per Doz.

No. 25792. Wrought bronze metal push $4.80
Size, 4¾ x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25793. Wrought bronze metal push 4.80
Size, 4¾ x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25794. Wrought bronze metal push 4.80
Size, 4¾ x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25795. Wrought bronze metal push 4.80
Size, 4 x 1⅜ in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25796. Wrought bronze metal push 4.80
Size, 4 x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25797. Wrought bronze metal push 4.80
Size, 4 x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, same price.

No. 25814. Cast bronze metal push 6.60
Size, 4¼ x 2⅜ in.; loose fibre back.
German silver springs.
Oxidized finish, 10% ex.

No. 25815. Cast bronze metal push 10.00
Size, 5 x 2¾ in.; loose fibre back.
German-silver springs.
Oxidized finish, 10% ex.

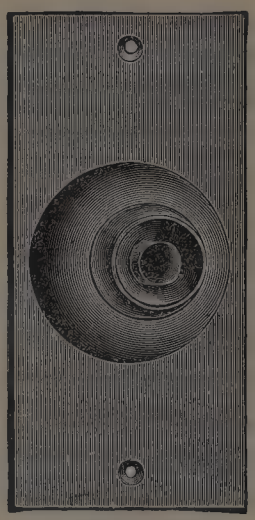
No. 25818. Cast bronze metal push 6.60
Size, 4¼ x 2¼ in.; loose fibre back.
German-silver springs.
Oxidized finish, 10% ex.

No. 25825. Cast bronze metal push 5.30
Size, 3⅞ x 1¾ in.; loose fibre back.
German-silver springs.
Oxidized finish, 10% ex.

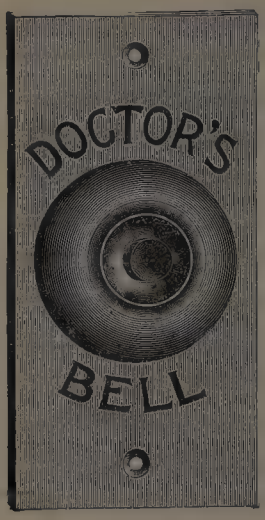
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PUSHES, Rectangular Plate.

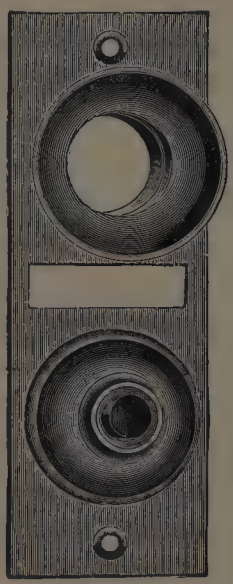
Rectangular Plate Metal Pushes (Continued).



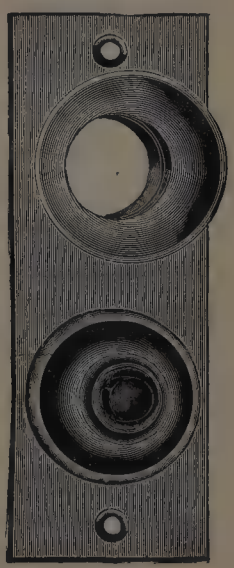
No. 25828. No. 25829, No. 25835.



No. 25845 to 25847.



No. 25877.



No. 25878.



No. 18.



No. 15.

Per Doz.

No. 25828. Cast bronze metal push..... $7.40
Size, 4⅞ x 2⅜ in.; loose fibre back.
German-silver springs.
Oxidized finish, 10% extra.

No. 25829. Cast bronze metal push..... 10.00
Size, 4⅞ x 2⅜ in.; screw cap; fibre back.
German-silver springs.
Oxidized finish, 10% extra.

Each.

No. 25835. Cast bronze metal push..... $1.70
Size, 7 x 3⅜ in.; loose fibre back.
German-silver springs.
Oxidized finish, 10% extra.
For other sizes cut to measure, add 25% extra.

No. 25845. Cast bronze metal push, Doctor's Bell ..... .66

No. 25846. Cast bronze metal push, Janitor's Bell..... .66

No. 25847. Cast bronze metal push, Night Bell ..... .66
Size, 5 x 2½ in.; loose fibre back.
German-silver springs.
Oxidized finish, 10% extra.

Per Doz.

No. 25877. Cast bronze metal push..... $10.00
Size, 5¾ x 2 in.; name panel opening, 1⅝ in.
Loose fibre back; German-silver springs.
Oxidized finish, 10% extra.

No. 25878. Cast bronze metal push..... 10.00
Size, 5½ x 2 in.; loose fibre back.
German-silver springs.
Oxidized finish, 10% extra.

PUSHES, Square Flush (see Keys, gas).

No. 18 Metal Plate Push.

A nickel finished flush plate 1¾ x 1¾ inches, with desk push in centre. Screw holes in sides unless ordered in corners.

Special size plates to order.....each, $ .36

No. 15 Metal Plate Push.

This push, like No. 18, can be made any size of plate to order. It can be lettered by stamping or by hand engraving to order. State from which direction it is to be read when giving order. Wood mats can be furnished.

3-button push (not stamped).....each, $ .70
5 ,, ,, (,, ,,).....,, 1.00

For other sizes, see Keys.



Style E.

PUSHES, Square Flush (Continued).

Style E Wood Base Push.

These pushes are designed for bell and annunciator calls, and are made similar to the Style D Key in oak. Other woods to order at a slight additional charge.

1-button push	each,	$ .35		5-button push	each,	$1.00
2 ,,	,,	.55		6 ,,	,,	1.20
3 ,,	,,	.70		8 ,,	,,	1.60
4 ,,	,,	.85		10 ,,	,,	2.00

PUSHES, Watertight.



Watertight Push.

Improved Watertight Push.

The centre of this push is covered by a cap provided with a pure gum disc, which, being elastic, will give when pressing the button and yet prevent water from getting into the shell. The ring is provided with two lugs to connect soft rubber tubing to cover the connecting wires.

Hard rubber back, German-silver springs with platinum contacts, bronze finish. Other finishes to order.

Used on government vessels, in ice houses, vaults, etc.

No. 1375. Watertight push, with platinum points ..... each, $2.00
,, 1376. ,, ,, without platinum points ..... ,, 1.80



Watchman's Key Push.

Navy Standard Watertight Push.

No. 1374. Watertight push with platinum contacts and wired with rubber-covered wire 16 inches in length .. each, $2.50

Navy Standard Non Watertight Push.

No. 1382. Diameter, 2⅜ inches; screw cap, platinum contacts, bronze finish ..... each, $1.00



Wood Push.

PUSHES, Watchman's Key (see Registers).

Watchman's Key Push.

For use with watchman's registers, etc., where signals are not to be tampered with. Regular finish, polished bronze. Other finishes to order.

Key included with each push.

No. 1716. Watchman's key push, complete $1.00



Small Wood Push.

PUSHES, Wood.

Common Wood Pushes.

No. S-1955. Made in oak, ash, cherry, walnut, etc., with German-silver contacts, polished finish; approximately 2⅜ inches in diameter ..... each, $ .12
No. S-1956. Small size, about 1¾ inches in diameter ..... ,, .12
,, S-1957. 3-point wood push ..... ,, .20



Extension Push.

Extension Push.

Can be used as a regular push, and by attaching a cord with pear push on end of same, can be extended to a bed, desk, table, etc. Made in oak and walnut.

No. 1364. Extension push ..... each, $ .30



Barrel Push.

Barrel Push.

Especially useful for electric gas lighting, the button in one end being used for lighting and the other for extinguishing. Length, 2¾ inches.

No. S-1958. Barrel push ..... each, $ .70



Pear Push.



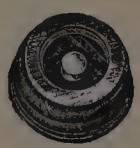
Fancy Pear Push.



Presselle.



Wall Rosette.



Emergency Push.



Anti-Wood Push.



Rack.

PUSHES, Wood (Continued).

Pear Pushes.

No. S-1959. Plain wood pear push, 2¾ inches long, generally furnished in oak or ash.....each, .25

No. S-1960. Fancy wood pear push, 3¾ inches long. Generally furnished in oak or ash with white imitation ivory ends.....each, .36

Presselle.

No. S-1961. Contact made by squeezing two halves together. Finely finished with imitation ivory ends...each, $ .60

Wall Rosette.

No. S-1962. Wooden wall rosette for use with pear pushes where an extension cord is desired.....each, $ .20

Emergency Push.

No. S-1963. An oak push 2¼ inches diameter, with glass over the button to prevent tampering with same. For factory use, machine shops, etc.....each, $ .40

PUSHES, Anti-Wood.

Anti-Wood Pushes.

Stamped metal pushes, made to resemble wood pushes, without the objectionable features of cracking, swelling, etc., to which wood pushes are subject. Made in three finishes: red bronze, called 3/0 finish; polished bronze, called 4/0, and antique copper, called 8/0.

No. 3/0. Anti-wood pushes..... per 100, $3.50
,, 4/0. ,, ,, ,, ... ,, 4.50
,, 8/0. ,, ,, ,, ... ,, 4.50

RACK.

Robinson Pole Distribution Rack.

A distribution rack to be attached to pole for distribution of subscribers' lines.

With the Robinson distribution rack all drops can be easily handled by placing the rack on the side desired or one on either side, as the occasion demands.

Another advantage possessed by this rack is that it can be extended to accommodate any number of insulators required. The upper and lower pieces are heavy, well-braced malleable iron castings of great strength, with convexed surfaces. This makes it unnecessary to gain the pole, as the casting conforms to the outline of the wood, and this also tends to lengthen the life of the pole, as no inner surface is exposed by cutting.

	Frame No.	Size. Per Rack.	List Price. Galvanized.
No. 19	1	5 pair	$1.60
,, 20	1	8 ,,	2.00
,, 21	2	10 ,,	2.50
,, 22	2	16 ,,	3.50
,, 13	3	5 ,,	3.00
,, 14	3	10 ,,	3.60
,, 15	3	15 ,,	4.40
,, 16	3	21 ,,	5.00
,, 17	3	27 ,,	6.00
,, 18	3	30 ,,	6.40

RADIATORS.

Simplex Electric Radiators.

While electric radiators are not practical for heating large areas or buildings, owing to the excessive cost for electric current, they are, nevertheless, very suitable for small rooms or offices, staterooms,

(*Continued on next page.*)

RADIATORS.

Simplex Electric Radiators (Continued).

closets, etc.; and in many cases, owing to their extreme convenience, they are indispensable. Watt ratings based on 112 and 230 volts.

Bath Room Radiators.



No. 1130.

Finished in white enamel, polished nickel legs, with porcelain supports. Made for 100 to 125 and 200 to 250 volts.

For the average bathroom, a 2,000-watt heater will in fifteen or twenty minutes accomplish the change of temperature usually required.

No. 1130. Size of base, 15 x 6 inches; total height, 26 inches; weighs 32 pounds; arranged for three divisions of heat; has 6 feet of three-conductor cord and no plug or switch; maximum watts, 2,000.....each, $35.00

No. 1132. Finished in aluminum bronze, instead of white enamel for..... 25.00
Indicating dial three-heat wall switch for above.... 2.50

No. 1131. Size of base, 21 x 6 inches; height over all, 26 inches; weight, 45 pounds; arranged for three divisions of heat; has 6 feet of three-conductor cord and no plug or switch; maximum watts, 3,000.....each, 48.00

No. 1133. Finished in aluminum bronze instead of white enamel for.....each, 37.00
Indicating dial three-heat wall switch for above, ,, 2.50

Small Radiators.

Made for 100 to 125 and 220 to 250 volts, one heat only. Nos. 1120 and 1121 are of cast iron throughout. With base 4½ x 7 inches; is 12 inches high and weighs 10½ pounds. Aluminum bronze finish; simple, compact, and strong. Enamel insulation.

No. 1120. One heat complete with 8 feet of cord, no plug; 800 watts.....each, $8.50

No. 1121. Three-heat, 8 feet of cord and three-heat connector switch, no plug, 200 minimum, 400 medium, 800 watts maximum.....each, 10.00

No. 1120G. Has diamond mesh, expanded metal guard, enclosing radiator; same form and size as 1121. Eight feet of cord, one heat, 1,100 watts.....each, 10.00

No. 1121G. Has diamond mesh expanded metal guard enclosing radiator; same form and size as No. 1121. Eight feet of cord, three-heat connector switch, no plug, minimum 275, medium 550, maximum 1,100 watts.....each, 11.50



No. 1121.

The form of these radiators makes them convenient for placing under windows or alongside the wall. They are made of cast iron with aluminum bronze finish, and are fitted with hard-wood base boards, moulded edges, and shellac finish. Thoroughly well made and substantial throughout. Enamel insulation.

Made for 100 to 125 and 220 to 250 volts.

For One Heat Only.

No. 1124. Base, 23 x 6 inches, heater 20 inches long, 10 inches high over all. Eight feet of cord, no plug, 800 watts.....each, $10.50

No. 1125. Base, 30½ x 6 inches, heater 30 inches long, 11 inches high over all. Eight feet of cord, no plug, 1,200 watts.....each, 12.50

For Three Divisions of Heat.

No. 1128. Base, 23 x 6 inches, heater 20 inches long, 10 inches high over all. Eight feet of cord, three-heat connector switch, no plug, 800 watts.....each, $12.00

No. 1129. Base, 30½ x 6 inches, heater 30 inches long, 11 inches high over all. Eight feet of cord, three-heat connector switch, no plug, 1,200 watts.....each, 14.50

(*Continued on next page.*)

RADIATORS.

Simplex Electric Radiators (Continued).

Small Radiators.

Same as above with expanded metal guard added,—

For One Heat Only.

No. 1114. Base, 23 x 6 x 11½ inches high over all. Weight, 21 pounds. Eight feet of cord, no plug, 1,200 watts.....each, $13.50

No. 1117. Base, 30½ x 6 x 12½ inches high over all. Weight, 26 pounds. Eight feet of cord, no plug, 1,500 watts .....each, 15.50

For Three Divisions of Heat.

No. 1116. Base, 23 x 6 x 11½ inches high over all. Weight, 21 pounds. Eight feet of cord, three-heat connector switch, no plug. Minimum 366, medium 734, maximum 1,200 watts.....each, $15.00

No. 1119. Base, 30½ x 6 x 12½ inches high over all. Weight, 26 pounds. Eight feet of cord, three-heat connector switch, no plug. Minimum 500, medium 1,000, maximum 1,500 watts.....each, 18.00

Stateroom Radiators.

For use on board ship, this radiator embodies the only construction details that guarantee durability. Because of the constant dampness the enamel insulation which seals the resistance completely prevents destructive results sure to follow any other form of construction. They are made of cast iron with expanded metal steel guards, aluminum bronze finish with hard-wood moulded edge baseboards, shellac finish, and present an attractive appearance.

No. 1110. Base, 23 x 6 in.; heater, 20 in. long, 9 in. over all, made with three equal divisions of heat, have special 3-heat dial indicating wall switch, chocolate finish, marked " heater "; maximum watts, 700 to 900, as ordered, each, $15.00

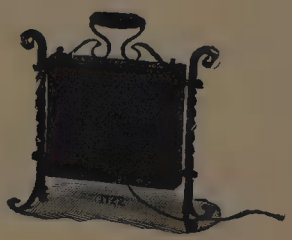
Made for any voltage to order up to 250.

Fire Screen Design.

Useful radiators when but little additional heat is required and an ornamental form is desired.

Hand-wrought iron frames, thoroughly well made, light and very easily portable. Finish, dull black.

Made 100 to 125 and 220 to 250 volts. Enamel insulation. Watt rating based on 112 and 230.



No. 1122.



No. 1123.

For One Heat Only.

No. 1112. 14 x 5 x 16 in. high. Weight, 18 lbs. Eight feet of cord, no plug, 900 watts.....each, $13.00

No. 1113. 17½ x 5 x 20 in. high. Weight, 25 lbs. Eight feet of cord, no plug, 1,200, watts.....each, 18.00

For Three Divisions of Heat.

No. 1122. 14 x 5 x 16 in. high. Weight, 18 lbs. Arranged for three divisions of heat, 8 ft. of cord with 3-heat connector switch, no plug, 900 watts maximum.....each, $15.00

No. 1123. 17½ x 5 x 20 in. high. Weight, 25 lbs. Arranged for three divisions of heat, 8 ft. of cord, 3-heat connector switch, no plug, 1,200 watts maximum.....each, 20.00

Coil Spring Type.

The design of the case (patented) permits free circulation while holding all parts securely in place. The resistance wire is a special alloy that will not oxidize, and the coils cannot creep or otherwise get out of place. All are provided with hard-wood, shellac-finished baseboards.

Volts, 100–125–220–250 and 500.

Watt rating based on 112, 230, and 500 as noted.

RADIATORS.

Simplex Electric Radiators (Continued).



No. 111.

Coil Spring Type.

For One Heat Only.

No. 107. Base, 23 x 6¾ x 12 in. high. Weight, 27 lbs. Eight feet of cord, no plug, *not made for 500 volts*. 800 watts.....each, $10.00

No. 108. Base, 27 x 6¾ x 14 in. high. Weight, 37 lbs. Eight feet of cord, no plug, *not made for 500 volts*. 1,500 watts.....each, 13.00

No. 109. Base, 27 x 8¾ x 14 in. high. Weight, 50 lbs. Eight feet of cord, no plug. All voltages. 3,000 watts.....each, 18.00

For Three Divisions of Heat.

No. 110. Base, 23 x 6¾ x 12 in. high. Weight, 27 lbs. Has 3-heat connector switch. Eight feet of cord, no plug. Made only for 100–125 volts. 800 watts.....each, 12.00

No. 111. Base, 27 x 6¾ x 14 in. high. Weight, 37 lbs. Has 3-heat connector switch, 8 ft. of cord, no plug, 100–125 volts only. 1,500 watts each, 15.00

Same, 220–250 volts....., 17.00

No. 112. Base, 27 x 8¾ x 14 in. high. Weight, 50 lbs. Has 3-heat connector switch, 8 ft. of cord, no plug, *not made for 500 volts*. 3,000 watts each, 20.00

Any of the above can be furnished to order with less maximum watts at same price.



No. 101.

Large Coil Spring Type.

The radiators as listed below are of larger dimensions, consequently heavier and less portable than those listed in the preceding pages. The heater construction is the same as those described above. Desirable for office, waiting-rooms, etc. Finished aluminum bronze.

Watt rating based on 112, 230, and 500 volts.

For One Heat Only.

No. 104. Base, 27 x 7¼ x 23 in. high. Weight, 70 lbs. Eight feet of cord, no plug, all voltages, 2,000 watts.....each, $23.00

No. 105. Base, 27 x 10½ x 23 in. high. Weight, 95 lbs. No cord or plug, all voltages, 4,000 watts each, 32.00

No. 106. Base, 27 x 14 x 23 in. high. Weight, 115 lbs. No plug or cord, all voltages, 6,000 watts each, 41.00

For Three Divisions of Heat.

No. 101. Base, 27 x 7¼ x 23 in. high. Weight, 70 lbs. No plug or cord, all voltages, 2,000 watts each, $25.00

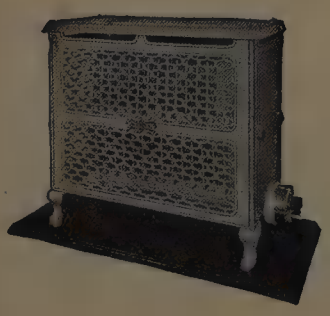
No. 102. Base, 27 x 10½ x 23 in. high. Weight, 95 lbs. No plug or cord, all voltages, 4,000 watts each, 35.00

No. 103. Base, 27 x 14 x 23 in. high. Weight, 115 lbs. No plug or cord, all voltages, 6,000 watts each, 45.00

Office Type.

These radiators are of large capacity, the most substantial possible construction, and of a design best calculated to insure the freest possible radiation, as well as pleasing appearance. These are specially suitable for heating large rooms requiring several radiators, and for such service are recommended.

Watt rating based on 112 and 250 volts.



No. 115.

For One Heat Only.

No. 115. Base, 27 x 13½ x 20½ in. high. Weight, 90 lbs. No cord or plug. For 100–125 volts, 4,000 watts.....each, $29.00
Not made for 220–250 volts.

No. 116. Base, 27 x 13½ x 20½ in. high. Weight, 102 lbs. No cord or plug. For 100–125, 220–250 volts, 6,000 watts.....each, 33.00

No. 117. Base, 36 x 13½ x 20½ in. high. Weight, 115 lbs. No cord or plug. For 100–125, 220–250 volts, 8,000 watts.....each, 38.50

RADIATORS.

Simplex Electric Radiators (Continued).

Office Type.

For Two Divisions of Heat.

No. 119. Base, 27 x 13½ x 20½ in. high. Weight, 102 lbs. Controlling switch on heater. No cord or plug. For 100–125 volts only, 6,000 watts.....each, $37.00

No. 120. Base, 36 x 13½ x 20½ in. high. Weight, 120 lbs. Controlling switch on heater. No cord or plug. For 100–125 volts only, 8,000 watts, each, 42.50

Workshop Type.



No. 123.

These radiators are similar to those above except that they are fitted with a wrought iron frame and expanded steel case, without base boards. They are equally as strong, though lighter, and are designed for factory and central station use. With installations consisting of a number of radiators a wide range of heat control can be had by arranging the wiring to operate them in multiple and multiple series controlled from a switchboard.

Watt rating based on 112 and 230 volts.

For One Heat Only.

No. 123. Base, 23 x 12 x 17 in. high. Weight, 55 lbs. No cord or plug. For 100–125 volts, 4,000 watts, Not made for 220–250 volts... each, $25.00

No. 124. Base, 23 x 12 x 17 in. high. Weight, 65 lbs. No cord or plug. For 100–125, 220–250 volts, 6,000 watts .....each, 28.50

No. 125. Base, 33 x 12 x 17 in. high. Weight, 70 lbs. No cord or plug. For 100–125, 220–250 volts, 8,000 watts .....each, 33.00

For Two Divisions of Heat.

No. 127. Base, 23 x 12 x 17 in. high. Weight, 65 lbs. Controlling switch on heater. No cord or plug. For 100–125 volts, 6,000 watts ..each, 32.50

No. 128. Base, 33 x 12 x 17 in. high. Weight, 70 lbs. Controlling switch on heater. No cord or plug. For 100–125 volts, 8,000 watts ..each, 37.00

G. E. Luminous Radiators



Luminous Radiator

Give heat immediately current is turned on, and in addition give a pleasing glow. Heat is by radiation and is not dependent on slow-moving currents of air.

All the benefits of an open fire without the sparks, dirt, and trouble.

Made with flat top, and especially useful in bath rooms, as articles may be placed on top for warming.

Luminous bulbs are replaceable.

These radiators are for intermittent service only.

			Watts.	Volts.		
No.	42176.	Oxidized finish	750...	95–105..	each,	$26.00
,,	42176.	Nickel ,, ...	750...	95–105..	,,	27.00
,,	42177.	Oxidized ,, ...	750...	106–115..	,,	26.00
,,	42177.	Nickel ,, ...	750...	106–115..	,,	27.00
,,	42178.	Oxidized ,, ...	750...	116–125..	,,	26.00
,,	42178.	Nickel ,, ...	750...	116–125..	,,	27.00
,,	42179.	Oxidized ,, ...	750...	200–225..	,,	27.50
,,	42179.	Nickel ,, ...	750...	200–225..	,,	28.50
,,	42180.	Oxidized ,, ...	1500...	95–105..	,,	27.50
,,	42180.	Nickel ,, ...	1500...	95–105..	,,	28.50
,,	42181.	Oxidized ,, ...	1500...	106–115..	,,	27.50
,,	42181.	Nickel ,, ...	1500...	106–115..	,,	28.50
,,	42182.	Oxidized ,, ...	1500...	116–125..	,,	27.50
,,	42182.	Nickel ,, ...	1500...	116–125..	,,	28.50
,,	43548.	Oxidized ,, ...	1500...	200–225..	,,	30.00
,,	43548.	Nickel ,, ...	1500...	200–225..	,,	31.00

RADIATORS (Continued).



Air Heater.

G. E. Non-Luminous Air Heaters.

Especially adapted for continuous service. Cartridge unit type.

The body of the heater is of sheet iron and the base ends are of cast iron. Four " units " stand vertically inside and a strong current of heated air passes up through the heater.

When required for intermittent use, radiator bulbs may be used in this heater in place of cartridge units. They heat the air as it passes through in the same way as the cartridge.

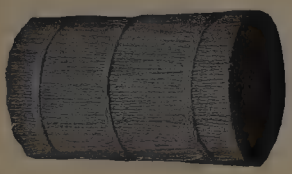
No. 42870	2000	watts	95–105	volts	each,	$40.00
,, 42871	2000	,,	106–115	,,	,,	40.00
,, 42872	2000	,,	116–125	,,	,,	40.00
,, 43506	2000	,,	200–225	,,	,,	40.00
,, 42873	2000	,,	226–250	,,	,,	40.00
,, 42874	2000	,,	500	,,	,,	40.00

Air Heaters with Lamp Resistance Units.

No. 42875	2000	watts	95–105	volts	each,	$37.00
,, 42876	2000	,,	106–115	,,	,,	37.00
,, 41038	2000	,,	116–125	,,	,,	37.00
,, 43507	2000	,,	200–225	,,	,,	37.00
,, 41039	2000	,,	226–250	,,	,,	37.00
,, 41040	2000	,,	500	,,	,,	37.00

RAIL Bender (see Bender).

RAIL Bonds (see Bonds).



Rattan.

RAILROAD Spikes (see S).

RAILWAY Insulators (see Insulators, feeder, strain, etc.).

RATCHET Screw Driver (see D).

RATTAN.

Snow Sweeper Rattan.

We are prepared to quote latest market prices on snow sweeper rattan in both natural and cut lengths.

Write for latest quotations.

RATTLER, Anti- (see A).

REAMERS.



No. 544 Reamer.

Lightning Burring Reamers.

These reamers will fit into an ordinary bit brace and are suitable for burring pipe $\frac{1}{2}$ to 1 inch. Also good for countersinking.

Made of fine steel, carefully ground to cut iron, brass, wood, etc.

Diameter at point, $\frac{7}{16}$ inch. Diameter at largest part, $1\frac{1}{4}$ inch. Length of fluting, $1\frac{9}{16}$ inch.

No. 544. Lightning reamer.....each, $1.25

RECEIVERS (see Telephones).

RECEPTACLES (see Sockets, Globes, W. P., etc.).

RECEPTACLES, see following headings:

Receptacles, Flush.
,, Marine.
,, Stage and Floor.
,, Voltmeter (see Switches, voltmeter).
,, Weatherproof (see Globes, weatherproof).

RECEPTACLES, Flush.

The Chapman Receptacle.

The Chapman receptacle has been improved over the old form, but for convenience in ordering the manufacturers have retained the old catalogue numbers.

The doors can be closed when the plug is in the receptacle.

There is a mechanical stop for the doors. The doors will always close flush, even if the plate cannot be brought tight against the receptacle.

(*Continued on next page.*)

RECEPTACLES, Flush.



No. 1108.



No. 1363.



No. 1110.

The Chapman Receptacle (Continued).

The plug has $\frac{13}{32}$ inch hole, permitting the use of No. 16 new code portable cord.

The plug is fuseless.

There is a space in the plug to tie a knot.

The plug contacts are so surrounded by porcelain that it is impossible to short circuit or ground the current through the plate when inserting the plug.

Supporting ears of novel design, in connection with special screws which are furnished with each receptacle, permit of generous vertical adjustment.

The binding-posts are accessible after the receptacle has been installed.

The porcelain is of such shape that there is ample room in any standard conduit box to wire " in loops."

The receptacle conforms to all requirements of the Underwriters' National Electrical Association.

Outside supporting screw holes, $3\frac{9}{32}$ inches on centres.

Inside supporting screw holes, $2\frac{13}{16}$ inches on centres.

Receptacles in gangs spaced $1\frac{13}{16}$ inches on centers.

No.		Std. Pkg.	Each.
1108.	Chapman receptacle and plug complete	25	$1.40
1363.	,, gang receptacle only	25	.50
1110.	,, plug only	25	.25
1364.	Single plate only $4\frac{1}{2}$ x $2\frac{3}{4}$ in.	25	.65
1365.	Plate for 2 receptacles $4\frac{1}{2}$ x $4\frac{9}{16}$ in.		1.50
1366.	,, ,, 3 ,, $4\frac{1}{2}$ x $6\frac{3}{8}$,,		2.25
1367.	,, ,, 4 ,, $4\frac{1}{2}$ x $8\frac{3}{16}$,,		3.00



No. 1708.



No. 1508.

Bryant Screw Plug Flush Receptacle.

This receptacle will receive any standard Edison attachment plug and will be found useful where it is desirable to transfer a connection from a chandelier or bracket.

Plates for mounting these receptacles in gangs will be furnished only on special order. When so mounted the receptacles will be spaced $1\frac{13}{16}$ inches on centres.

Outside supporting screw-holes, $3\frac{9}{32}$ inches on centres.

Inside ,, ,, $2\frac{13}{16}$,, ,,

No.		Std. Pkg.	Each.
1708.	Edison screw plug gang receptacle only	25	$ .40
1709.	Single plate for above, $4\frac{1}{2}$ x $2\frac{3}{4}$ in.	25	.60



No. 1682.

Bryant Midget Flush Receptacle.

Plate is polished brass, $2\frac{7}{16}$ inches in diameter. Supporting screw holes $1\frac{1}{2}$ inches on centres. Receptacle can be inserted in $1\frac{1}{8}$-inch hole.

		Std. Pkg.	Each.
No. 1508.	Flush receptacle with plug	25	each, $ .80
,, 1509.	,, ,, only	25	,, .55
,, 1510.	Plug only	25	,, .25

K.-W. Surface Plug Receptacle.

Similar to a K. W. rosette. Made to take the plug of the Midget Flush Receptacle above. Caps are interchangeable and will fit any K. W. rosette base.

No.		Std. Pkg.	Each.
1681.	Surface receptacle, with plug, concealed	25	$ .85
1682.	,, ,, ,, ,, cleat	25	.85
1683.	,, ,, ,, ,, square moulding	25	.85
1684.	Surface receptacle, with plug, combination	25	.85
1685.	Surface receptacle, without plug, concealed,	25	.60
1686.	,, ,, ,, ,, cleat	25	.60
1687.	,, ,, ,, ,, square moulding	25	.60
1688.	Surface receptacle, without plug, combination	25	.60
1510.	Plug only for above	25	.25

RECEPTACLES, **Flush** (Continued).

G. E. Flush Pocket Wall Receptacle.

Receptacle and plug, Cat. No. 33441, have many advantages. The face plate is entirely flush whether the plug is in use or not, the small doors being fitted with a spring attachment holding them either closed or open under tension. The body of both plug and receptacle is made of porcelain, amply proportioned to withstand severe usage. Binding-posts are readily accessible. Standard finish of face plate is polished brass. Other finishes can be furnished if desired.



Cat. Nos. 33441 and 33442.

No.		Std. Pkg.	Each.
33441.	Flush receptacle, complete with plate and plug	25	$1.40
38297.	Flush receptacle, with plate only	25	1.15
38298.	,, ,, without plate	25	.50
33442.	Plug only	25	.25
38299.	Single plate only	25	.65
38360.	Two-gang plate, for two receptacles, Cat. No. 38298		2.40
38361.	Three-gang plate, for three receptacles, Cat. No. 38298		3.60
38362.	Four-gang plate, for four receptacles, Cat. No. 38298		4.80
38363.	Five-gang plate, for five receptacles, Cat. No. 38298		6.00
38364.	Six-gang plate, for six receptacles, Cat. No. 38298		7.20
38365.	Seven-gang plate, for seven receptacles, Cat. No. 38298		8.40
38366.	Eight-gang plate, for eight receptacles, Cat. No. 38298		9.60

G. E. Flush Plug Receptacle.

Receptacle Cat. No. 36817 is designed for use with standard Edison attaching plugs on 125- or 250-volt circuits. It does not require special attaching plugs which could not be used in other sockets and receptacles in the same installation, and is of attractive appearance whether in use or not. The face plate is of heavy brass with a polished nickel finish as standard. Other finishes can be furnished if so desired.



No. 36817.

		Std. Pkg.	Each.
No. 36817.	Flush receptacle for Edison base attaching plugs (without plug)	25	$ .40
No. 36818.	Nickel plate, for Cat. No. 36817	25	.60

Diamond H. Flush Receptacle.

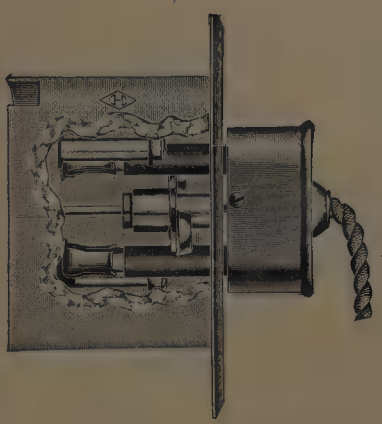
The pilot pin in the centre of the plug is inserted in the slotted hole in the face plate. The plug is then pushed in until the contact pins carried by the plug engage the contact clips in the body of the receptacle. The shutter which closes the holes in the face plate is automatically operated by the pilot pin.

The shutter cannot be left open, as it closes automatically upon removal of the plug.

One hand only is required to operate the receptacle and plug.

They fit standard wall appliances made for push-button switches.

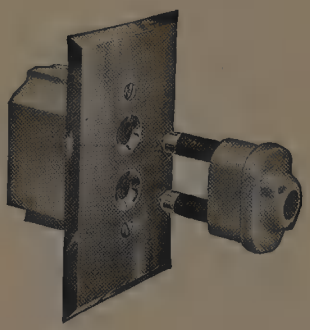
The porcelain body of the plug is encased in a finished steel shell, which prevents accidental breakage. It is impossible to produce a short circuit or a ground by the insertion of the plug.



No. 650. Diamond H. Receptacle and Plug.

No. 650.	Receptacle and plug, complete	$2.20
,, 651.	Plate only	.90
,, 653.	Plug ,,	.60
,, 652.	Receptacle, without plate and plug	.70

RECEPTACLES, **Flush** (Continued).



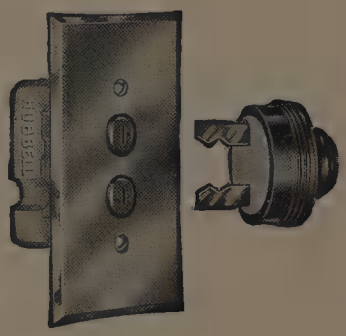
No. 2034. H. & H. Receptacle and Plug.

H. & H. Flush Receptacle.

The doors through which the plug passes operate automatically. The plug has a $\frac{3}{32}$-inch notch, permitting the use of No. 16 new code portable cord, and is fuseless. The porcelain base is so constructed that it is impossible to short-circuit the receptacle when inserting the plug. There is space enough in the plug to permit of a knot being tied in the cord.

Plate matches push switch plate as regards screw holes and general appearance.

		Std. Pkg.		
No. 2001.	Receptacle base only	25	each,	$ .70
,, 2002.	Plug only	25	,,	.50
,, 2033.	Plate ,,	25	,,	.65
,, 2034.	Receptacle and plug, complete	25	,,	1.85



No. 5551.

Hubbell Flush Receptacle.

A 15-ampere approved 250-volt flush receptacle, having knife-blade contacts.

Fits all standard switch boxes and is especially useful for heating apparatus, small motors, or for any work where current does not exceed 15 amperes.

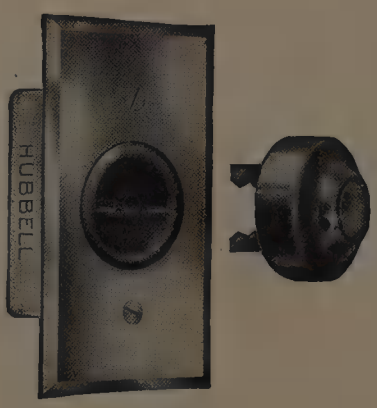
		Std. Pkg.		
No. 5551.	Flush receptacle, complete	50	each,	$2.00
,, 5552.	Plug only, for same		,,	.75

Hubbell Flush Attachment Plug without Cover.

This flush plug does away with the lid when not in use, and still presents a flush surface, having at the same time no electrical contacts exposed.

When connected, the cap only projects one-half inch above the surface of the plug.

		Std. Pkg.	Pkg. Weight.	Price.
No. 5415.	Flush attachment plug, without cap, with $4\frac{1}{2}$ x $2\frac{3}{4}$ plate	50	38 lbs.	$1.25
No. 5416.	Flush attachment plug, with porcelain cap, with $4\frac{1}{2}$ x $2\frac{3}{4}$ plate	50	42 ,,	1.45
No. 5417.	Flush attachment plug, with composition cap, with $4\frac{1}{2}$ x $2\frac{3}{4}$ plate	50	41 ,,	1.45
No. 5418.	Flush attachment plug, with brass covered porcelain cap, with $4\frac{1}{2}$ x $2\frac{3}{4}$ plate	50	43 ,,	1.50
No. 5443.	Flush attachment plug, without cap, with $2\frac{1}{2}$ x $4\frac{1}{4}$ plate	50	38 ,,	1.25
No. 5444.	Flush attachment plug, with porcelain cap, with $2\frac{1}{2}$ x $4\frac{1}{4}$ plate	50	42 ,,	1.40
No. 5445.	Flush attachment plug, with composition cap, with $2\frac{1}{2}$ x $4\frac{1}{4}$ plate	50	41 ,,	1.45
No. 5446.	Flush attachment plug, with brass covered porcelain cap, with $2\frac{1}{2}$ x $4\frac{1}{4}$ plate	50	43 ,,	1.50



No. 5418.

Polished brass, old brass, polished nickel, oxidized copper, are standard finishes. All goods shipped polished brass unless otherwise specified.



No. 5501.

RECEPTACLES, Flush (Continued).

Hubbell Flush Attachment Plug with Cover.

The mechanical features of this plug are identical with those above, except the plate is fitted with a double hinge and shows no holes or openings.

When in use, it swings back on the plate, and the cap, setting in a recess, is practically flush with the surface.

	Std. Pkg.	Pkg. Weight.	Price.
No. 5498. Flush attachment plug, without cap, with 4½ x 2¾ plate	50	53 lbs.	$1.75
No. 5499. Flush attachment plug, with porcelain cap, with 4½ x 2¾ plate	50	57 ,,	1.90
No. 5500. Flush attachment plug, with composition cap, with 4½ x 2¾ plate	50	56 ,,	1.95
No. 5501. Flush attachment plug, with brass covered porcelain cap, with 4½ x 2¾ plate	50	58 ,,	2.00
No. 5502. Flush attachment plug, without cap, with 2½ x 4¼ plate	50	53 ,,	1.75
No. 5503. Flush attachment plug, with porcelain cap, with 2½ x 4¼ plate	50	57 ,,	1.90
No. 5504. Flush attachment plug, with composition cap, with 2½ x 4¼ plate	50	56 ,,	1.95
No. 5505. Flush attachment plug, with brass covered porcelain cap, with 2½ x 4¼ plate	50	58 ,,	2.00

Polished brass, old brass, polished nickel, oxidized copper, are standard finishes. All goods shipped polished brass, unless otherwise specified.

Simplex Plug Switches, 125 Volts.

With a view to providing convenient fittings suitable for electric heating apparatus, the articles listed below have been devised. By using plug switches, a glance shows whether the heater is connected to circuit, enables the heater to be disconnected and removed at will, and is generally more convenient than other forms of switch.



No. 903. No. 902.

No. 901. Plug switch, receptacle and plug, 15 amps. . . . each, $1.50
,, 902. Extra plug for 901 . . . . . ,, .75
,, 903. Extra receptacle for No. 901 . . . . . ,, .75

Simplex Plug Switches, 300 Volts.

The plug switches listed below have the same receptacle, but for different service have different plugs. The 914-1 is a plain plug and receptacle. No. 914-3 has the same receptacle with a three-conductor, circuit, changing plug, suitable for two-circuit work. By using No. 914 receptacles in an installation, a one-circuit plug or a two-circuit plug may be used as required.

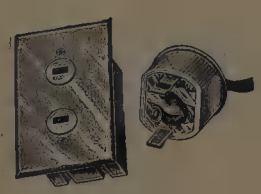


No. 914. No. 915. No. 916.

No. 914. Receptacle . . . . . 20 amps. . . . . each, $ .90
,, 914–1. Plug switch . . . . . 20 ,, ... ,, 1.65
,, 915. Plug, plain one circuit for No. 914. . . . . ,, .75
,, 914–3. Three-heat plug switch. . . . . 20 amps. . . . . ,, 2.50
,, 916. Three-heat plug for No. 914 . . . . . ,, 1.60

Simplex Flush Plug Switches, 300 Volts.

These are made as shown with nickel or polished brass fronts with porcelain bushings for plug contracts. Plug handles all porcelain.



Nos. 963, 964. No. 962.

No. 960. Flush plug switch, fuseless, nickel plated, 15 amperes . . . . . each, $1.75
No. 961. Flush plug switch, fuseless, polished brass, 15 amperes . . . . . each, 1.75
No. 962. Extra plug for No. 960 and No. 961, 15 amperes, ,, .60
,, 963. Extra receptacle, nickel plated, for No. 960, 15 amperes . . . . . each, 1.15
No. 964. Extra receptacle, polished brass, for No. 961, 15 amperes . . . . . each, 1.15

RECEPTACLES, Flush (Continued).

Simplex Box Plug Switch, 300 Volts.

All porcelain box, cover, and plug. Double jack-knife contacts very substantial.

No. 940. Porcelain plug switch, fuseless, 30 amperes.....each, $1.75
No. 941. Extra plug for No. 940 and No. 943, 30 amperes.....each, .75
No. 942. Extra receptacle for No. 940, 30 amperes.....each, 1.00
No. 943. Porcelain plug switch with cartridge fuses, 30 amperes.....each, 2.50
No. 944. Extra receptacle for No. 943 with cartridge fuses, 30 amperes.....each, 1.75



No. 942. No. 941.

Plug Switch Panels.

Where a kitchen equipment is established, a plain wood top table makes a suitable "range"; a panel, with the receptacles of plug switches, when placed on the wall back of the table, completes the outfit.

Such receptacles as are ordered will be mounted and connected so that it is ready to put in place when received, two wires being all that is necessary for the electrician to connect to the supply outlet.

The prices of the panels as above (which do not include the receptacles) are as follows:

No. 930. Size, 28 x 6 in. Suitable for four or five receptacles. Plain slate..... $2.00
No. 931. Same. Enameled slate..... 2.75
,, 932. ,, White marble..... 3.75
,, 933. Size, 34 x 6 in. Suitable for five or six receptacles. Plain slate..... 2.25
No. 934. Same. Enameled slate..... 3.00
,, 935. ,, White marble..... 4.20

RECEPTACLES, Marine.

Marine Receptacles with Plugs.

The boxes are made of non-corrosive composition and are perfectly watertight. The catalogue number of the box includes glands, washers, and mica bottom plate.

The catalogue number of the cover includes chain and soft rubber packing.

In ordering boxes for conduit work specify the size of conduit, otherwise ends will be left blank.



No. 22323.

W. T. 5-Ampere Receptacles with Plugs.

No. 22526. Receptacle complete, with plug, arranged for moulding wiring.....each, $4.25
No. 22375. Box only for same... ,, 2.50
,, 22323. Receptacle complete, with plug, arranged for conduit wiring.....each, 3.00.
No. 25023. Box only, for same.. ,, 1.45
,, 22527. Cover for box, with cap, ,, .65
,, 22513. Cap for cover..... ,, .20
,, 29431. Receptacle plug, complete, each, .75
No. 25002. Interior fitting..... ,, .25



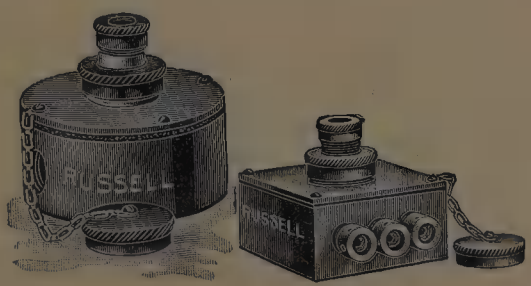
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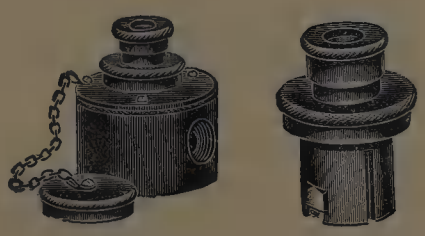
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No. 25034.



No. 484. No. 453.



No. 447. No. 452.

RECEPTACLES, **Marine** (Continued).

W. T. 5-Ampere Receptacles for Two Plugs.

No. 30618. Receptacle complete, with plugs, arranged for moulding wiring.....each, $5.25
No. 22475. Box only, for same.....,, 2.50
,, 30619. Receptacle complete, with plugs, arranged for conduit wiring.....each, 4.25
No. 25023. Box only, for same.... ,, 1.45
,, 30620. Cover for box, with caps, ,, .90
,, 22513. Cap for cover..... ,, .20
,, 29431. Receptacle plug, compl., ,, .75
,, 30621. Interior fitting..... ,, .25

W. T. Three-way 5-Ampere Receptacles with Attaching Plug.

No. 11300. Receptacle complete, with plug, arranged for moulding wiring.....each, $8.00
No. 11302. Box..... ,, 2.75
,, 11303. Cover for box, with cap, ,, .90
,, 22513. Cap for cover..... ,, .20
,, 11305. Receptacle plug, compl., ,, 1.55
,, 11306. Interior fitting..... ,, 2.75
,, 11301. Receptacle complete, with plug, arranged for conduit wiring.....each, 6.50
No. 25023. Box..... ,, 1.45
,, 22527. Cover for box, with cap, ,, .65
,, 22513. Cap for cover..... ,, .20
,, 11305. Receptacle plug, compl., ,, 1.55
,, 11306. Interior fitting..... ,, 2.75

W. T. Searchlight Receptacles and Plug.

No. 64113. Receptacle complete, with plug; without key, arranged for moulding wiring.....each, $18.00
No. 25016. Box..... ,, 3.50
,, 25034. Receptacle complete, with plug; without key, arranged for conduit wiring.....each, 17.50
No. 25035. Box..... ,, 3.00
,, 22586. Cover for box, with cap, ,, 2.95
,, 22579. Cap for cover..... ,, .55
,, 22594. Receptacle plug, complete.....each, 8.00
No. 63766. Key for removing cap from cover.....each, .35
No. 25017. Interior fitting..... ,, 3.50

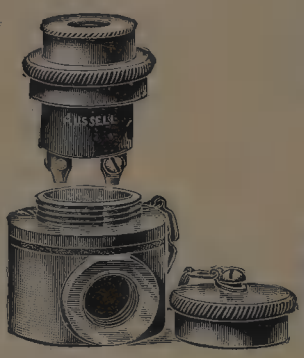
Russell Marine Receptacles.

No. 484. 10-amp. marine receptacle and plug, 3-wire, complete, for $\frac{3}{4}$-in. conduit.....each, $7.00
No. 484A. 10-amp. marine receptacle and plug, 3-wire, complete, for 1-in. conduit.....each, 7.00
No. 453. 10-amp. marine receptacle and plug, 3-wire, complete, for moulding.....each, 8.50
No. 453A. 10-amp. 3-wire, plug, complete.....each, 2.00
No. 452. 2-wire, plug only..... ,, 1.20
,, 447. 2-wire, complete, for $\frac{1}{2}$-in. conduit.....each, 4.50
No. 447A. 2-wire, complete, for $\frac{3}{4}$-in. conduit.....each, 4.50

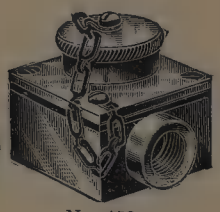
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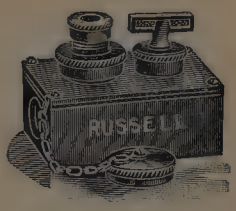
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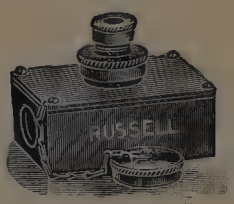
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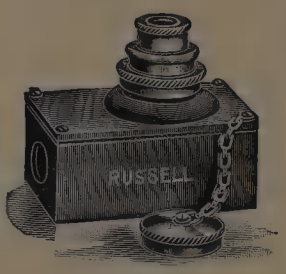
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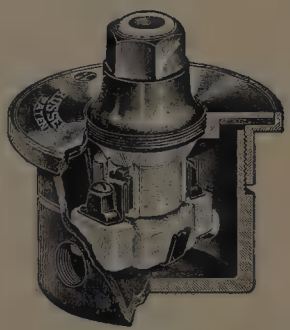
No. 478.



No. 479.



No. 480.



No 5A.





Plug for Nos. 5A and 5.



No. 5.



No. 466.

RECEPTACLES, Marine.

Russell Marine Receptacles (Continued).

No. 448. Complete, 10-amp. S. P. switch, for ½-in. conduit, each, $4.50

No. 448A. Complete, 10-amp. S. P. sw., for ¾-in. conduit.....each, 4.50

No. 458. 1-amp. marine receptacle and plug, brass box, complete.....each, 5.20
For ¼-, ⅜-, or ½-in. pipe.
Plug only..... ,, 2.00

No. 459. Same as above, except in square box, complete, each, 5.00

No. 449. 10-amp. marine switch and receptacle, for moulding, complete.....each, 6.40

No. 478. 10-amp. marine switch and receptacle, for ½- or ¾-in. conduit.....each, 6.00

No. 479. 10-amp. marine receptacle, in rectangular box, for ½- or ¾-in. conduit.....each, 5.00
Plug only, for Nos. 449, 478, or 479.....each, 1.20

No. 480. 50-amp. marine receptacle, complete, for ¾- or 1-in. conduit.....each, 15.00

Specify size of outlets.

RECEPTACLES, Stage and Floor.

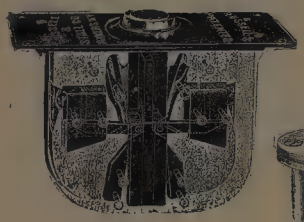
Russell Floor Receptacles.

No. 5A. Russell watertight floor receptacle, complete, with plug and adjustable top....each, $5.50
Porcelain plug only..... ,, .30

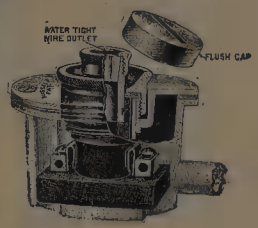
No. 5. Russell watertight floor receptacle, complete, with plug, but with non-adjustable top.....each, 4.00
Porcelain plug only..... ,, .30

No. 466. Russell plain watertight floor box, with brass cover and flush plug.....each, 2.00

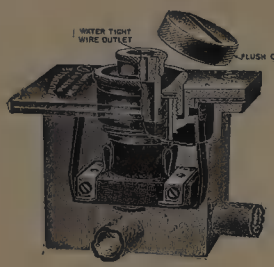
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No. 1.



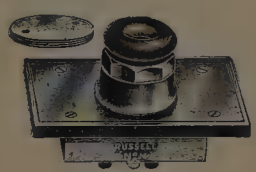
No. 3.



No. 2.



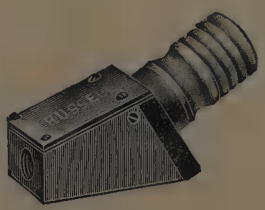
No. 14.



No. 14F.







No. 455. No. 456.



Cushing Stage Pocket and Plug.

RECEPTACLES, Stage and Floor.

Russell Floor Receptacles (Continued).

No. 1. Russell quick-break stage pocket and plug, 25 amps. capacity, with heavy porcelain body. Absolutely proof against trouble from foreign matter getting into plug hole, as live terminals are well away from the throat. Plug terminals reach out to the pocket terminals..... each, $14.00

No. 3. Russell waterproof floor receptacle and plug, 10 amps. capacity, with plug securely held to take all the stress of the cable; mechanically and electrically good. Small round box. (Specify outlets in ordering).....each, 5.00

No. 2. Russell waterproof floor receptacle and plug, with plug so arranged that standpipe may be readily attached. Plug and box easy to install. Plug goes in only one way, maintaining polarity. Complete, with round box.....each, 5.50

Complete, with square box, each, 5.50
Plug only, for No. 2 or 3, ,, 1.50

No. 14. Russell 50-amp. flush wall receptacle, with fibre handle plug, heavy beveled edge, brass faceplate, mounted in iron box, each, 13.00
Plug only.....each, 3.00

No. 14F. Same as above, fitted with heavy floor plate, plug cover, and flush cap, complete each, 15.00

No. 455. Russell 10-amp. flap door iron box receptacle and push-in plug.....each, 2.50
Push-in plug only..... 1.00

No. 456. Russell 10-amp. heavy brass spring jack brewery receptacle and plug for conduit work.....each, 6.00
Plug only..... ,, 1 50

Cushing Stage Pocket and Plug.

The standard style is arranged for two attachment plugs, each socket having connection for two 30-ampere Edison fuse plugs. The current-carrying parts are mounted on slate securely clamped in the box. The lids are so arranged that they cannot be left open. Notches are provided in the frame to allow the cable to pass through without danger of being injured when the lid is closed.

All live parts are in a separate compartment, and the section of the box which is open from the top has a clear passage through to prevent the accumulation of dirt.

The boxwood attaching plug is especially designed to withstand the rough usage of stage work. It can enter the pocket but one way, thereby preventing a reversal of polarity.

No. S-1964. Cushing stage pocket only, each, $20.00

No. S-1965. Boxwood attaching plugs, only.....each, 2.00



No. 1505.



No. 1500T.



No. 3000.



No. 4000.



G. E. Floor Outlet Box.

RECEPTACLES, Stage and Floor (Continued).

Fielding Sectional Mica Stage Receptacle. 50 Amps., 250 Volts.

Made strictly in accordance with the rules of the National Board of Fire Underwriters and scheduled in their list of approved fittings. It is fireproof, waterproof, and mechanical injury proof.

The plug is made of mica discs forced on to a steel shaft and then turned. No repairs are ever necessary.

No. 1505. Fielding sectional mica receptacle and plug complete with iron outlet box, self-closing duplex covers, and locking device in handle of plug, preventing strain on connections.....each, $30.00
No. 1505R. Stage receptacle only, without plug..... ,, 15.00
,, 1505P. Plug only, without receptacle..... ,, 15.00

The following style is especially adapted to storage battery charging, portable motors, clock work, switchboard work, etc., as well as for stage use. Parallel band construction makes it impossible to reverse polarity.

No. 1500B. Fielding receptacle and plug arranged for conduit to enter from bottom.....each, $25.00
No. 1500T. Same, arranged for conduit to enter at top, ,, 25.00
,, 1500R. Receptacle only, without plug..... ,, 12.50
,, 1500P. Plug only, without receptacle..... ,, 12.50

Simplex Floor Box and Receptacle. 6 Amps., 250 Volts.

The most rapid "cut-in" waterproof floor box yet manufactured. Can be easily set with an expansion bit. Every little detail of practical advantage has been incorporated in its construction. Regularly furnished with four tapped conduit entrances for ½-inch conduit, three of which are plugged with removable plugs, two in bottom and two in side of box.

No. 3000. Simplex floor box and receptacle complete, each, $4.00
,, 3000B. Box only, without dome, cap, or receptacle, but with blank bronze plate covering entire box, each, 3.50

The following style is especially adapted for use in cement, granolithic, tile, and other types of floors of this character. Plate is adjustable after box has been set.

The box has been approved by the largest electrical contractors as overcoming every difficulty in the operation of setting a floor box in a fireproof building.

It is furnished with universal lugs to take the following standard receptacles: Diamond H, Bryant-Chapman, Hubbell, Pringle, Hart, etc.

No. 4000. Simplex floor box, without receptacle.....each, $9.00

G. E. Floor Outlet Box.

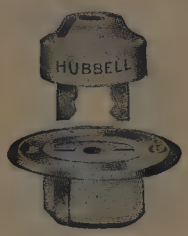
Drawn from ⅛-inch cold rolled steel. Threaded portion gives adjustment of one inch. Floor plate of heavy polished brass and is fastened to iron collar with screws, with a rubber gasket between. Body is black japanned finish.

Floor plate need not be removed to insert or remove plug. When not in use box may be closed by means of a brass flush sealing plug. Price does not include inside fittings. Use G. E. receptacle No. 50745 with any regular Edison attaching plug.

Diameter across floor plate, 5 inches; body diameter, 4 inches.
Height adjustable from 3⅜ inches to 4⅜ inches.
Weight complete with outlet nozzle, 3¼ pounds.

Conduit holes threaded with ½-inch standard pipe tap can be tapped larger if so ordered.

No. 76459. Box complete with round floor plate and either single or double nozzle.....each, $4.00
No. 76460. Box complete with square floor plate and either single or double nozzle.....each, 4.50
Round brass plate, gasket, and screws only, ,, 1.10
Square ,, ,, ,, ,, ,, ,, ,, 1.30
No. 76465. Single outlet nozzle..... ,, 1.40
,, 76466. Double ,, ,, ... ,, 1.40
,, 76467. Flush sealing plug (for floor plate)..... ,, .40
,, 76468. Sealing plug (for conduit hole)..... ,, .10



No. 5506.

RECEPTACLES, Stage and Floor (Continued).

Hubbell Floor Receptacles.

The same principle that is used in the other Hubbell plugs is embodied in this device.

The plate measures 2½ inches in diameter and can be used in side wall work as well as a floor receptacle.

		Pkg. Std. Pkg.	Weight. Lbs.	Price.
No. 5506.	Floor receptacle, porcelain cap	25	12	$1.15
,, 5507.	,, ,, composition cap	25	11	1.20
,, 5508.	,, ,, brass-covered cap	25	13	1.25

RECEPTACLES, Voltmeter (see Switches, voltmeter).

RECEPTACLES, Weatherproof (see Globes, weatherproof).

RECORDING INSTRUMENTS (see Ammeters, Voltmeters, Watt Meters).

RECTIFIERS.

Mercury Arc Rectifiers.

The mercury arc rectifier is the simplest and most economical device for obtaining direct current from an alternating circuit. It requires small floor space, has a remarkable efficiency and may be operated by inexperienced persons with safety.

It is made in three forms: for charging automobile batteries and others requiring a charging current of from 10 to 40 amperes; for charging ignition batteries; and for rectifying current for small direct current motors.





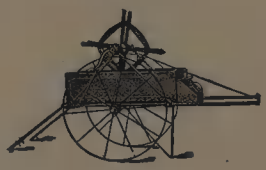
For Charging Automobile Batteries.

Cat. No.	D. C. Amps. Cap.	D. C. Volts.	A. C. Volts.	Cat. No. Rectifier Tube.	Volt-meter Scale.	Am. Scale.	Cells Lead Battery.	Cycles.*	List.
41223	10	15– 45	110	40948	75	30	5–18	60	$350.00
41227	10	30– 45 45– 75	110 220	40949	75	30	15–18 18–24	60	350.00
41231	10	45–115	220	40949	120	30	18–44	60	350.00
41235	10	90–175	330	40950	175	30	44–68	60	390.00
41224	20	15– 45	110	40951	75	30	5–18	60	390.00
41228	20	30– 45 45– 75	110 220	40952	75	30	15–18 18–24	60	390.00
41232	20	45–115	220	40952	120	30	18–44	60	390.00
41236	20	90–175	330	40953	175	30	44–68	60	420.00
41225	30	15– 45	110	40954	75	60	5–18	60	420.00
41229	30	30– 45 45– 75	110 220	40955	75	60	15–18 18–24	60	420.00
41233	30	45–115	220	40955	120	60	18–44	60	420.00
41237	30	90–175	330	40956	175	60	44–68	60	480.00
41226	40	15– 45	110	40957	75	60	5–18	60	500.00
41230	40	30– 45 45– 75	110 220	40958	75	60	15–18 18–24	60	500.00
41234	40	45–115	220	40958	120	60	18–44	60	500.00
41238	40	90–175	330	40959	175	60	44–68	60	600.00

* It will be noted that the above outfits are rated at 60 cycles. They can, however, be used on any frequency from 25 to 140 cycles, although the voltage characteristics will change somewhat. For instance, a standard outfit operating on 125 cycles will give a D. C. voltage of about 15 per cent lower than when operating at 60 cycles.







Lineman's Cart with Reel, No. 160.



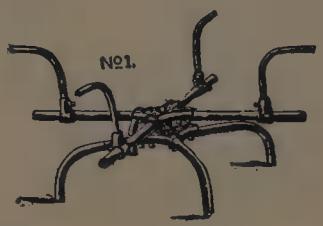
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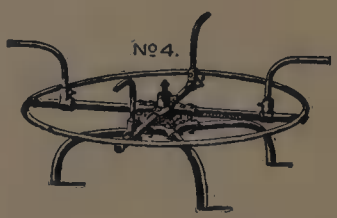


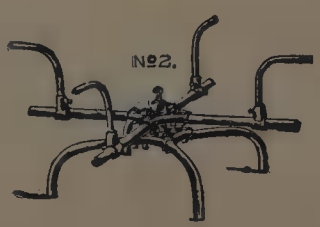
Nos. 136 and 135.

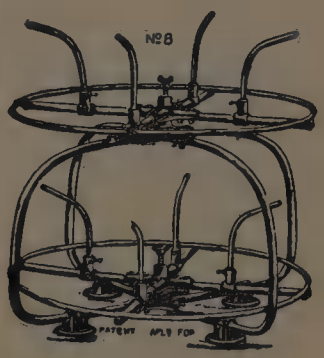


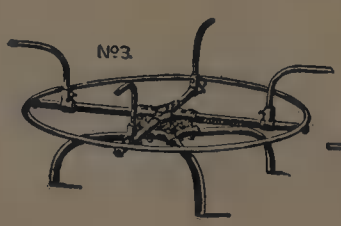
Nos. 138 and 139.













RECTIFIERS.

Mercury Arc Rectifiers
(Continued).

For Ignition Batteries on 60 Cycles, 110 Volts.

Cat. No.	D. C. Amps. Cap.	D. C. Volts.	Cells Lead Battery.	List.
43415*	5	12	2–5	$140.00
43416†	5	12	2–5	170.00

Rectifier tube used with above, No. 40948.

Small Motor Rectifiers on 60 Cycles, 110 Volts.

Cat. No.	D. C. Amps. Cap.	D. C. Volts.	Cat. No. Rectifier Tube.	List.
43531	10	15	40948	$190.00
43532	10	30	40948	190.00
43533	10	45	40948	190.00
43534‡	10	110	40949	190.00
43535	15	15	40951	200.00
43536	15	30	40951	200.00
43537	15	45	40951	200.00

* Without Ammeter.
† With Ammeter.
‡ 220 volts (alternating).

REELS.

Lineman's Reels.

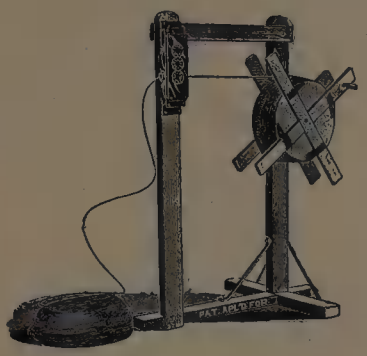
No. 160. Lineman's cart with reel mounted on same, to take up or pay out telephone wires.....each, $27.50
No. 137. Common pay-out reel .....each, 10.00
No. 136. Railway and telegraph combination pay-out reel, extra strong, ironed and bolted, oak frame each, 16.00
No. 135. Same as above, only lighter frame, for telegraph and electric light work, each, 12.50
No. 138. 12-inch improved take-up reel....each, 20.00
No. 139. 18-inch improved take-up reel...each, 22.00

Ready Pay-out Reels.

Made entirely of iron, interchangeable. Reels Nos. 2, 4, 8, 10, and 12 have tension attachments.

Nos. 7 and 8 can be used in ordinary wagon beds.

	Net Each.
No. 1. Reel, plain, for use with heavy wires.	$4.50
No. 2. Plain tension reel....	6.00
No. 3. Band reel.....	7.50
No. 4. Band tension reel, especially adapted for telephone use.	9.00
No. 7. Band tandem reel..	17.00
No. 8. Band tension tandem reel.....	20.00
No. 9. Barrow plain reel..	6.50
No. 10. Barrow tension reel,	8.00
No. 11. Barrow band reel..	9.50
No. 12. Barrow tension reel,	11.00



Reel and Meter.

REELS, Measuring.

Minneapolis Wire Reel and Meter.

A most efficient device for measuring and reeling wire and cordage of various sizes. It should be in use by all dealers and contractors handling electric wire

In the meter the wire passes between two self-adjusting rollers which admit of wide range, and will measure accurately large or small sizes. The pointers are movable and may be instantly reset to zero point.

The reel is provided with removable cross-bars, and the drum with grooves so that the coil may be bound with tie wires and removed in a compact form.

The counter meter is intended to be fastened to a counter and for use where the reel and frame are not desired.

The cable meter will measure small sizes of wire as well as large cables, flexible conduit, rope, etc.

No. S-1980. Reel and meter, complete..each, $30.00
,, S-1981. Meter only..... ,, 19.20
,, S-1982. Counter meter..... ,, 19.75
,, S-1983. Cable meter..... ,, 30.00



Counter Meter.

Counter Reel and Wire Measurer.

The wire winder makes a neat coil of any size desired and is instantly opened or closed. Especially useful for coiling annunciator, office and magnet wire.

The wire measurer registers up to 10,000 ft., the pointers being friction held and easily reset. Height, 12 inches.

The wire reel is adjusted to accommodate spools of annunciator wire, coils of cord or wire, etc., and shuts up into small space.

	Each.
No. S-1984. Perfection wire winder only.....	$10.00
,, S-1985. Improved measuring machine only.....	15.00
No, S-1986. Perfection wire reel only.....	6.00



Reel, Measurer, Winder.

REFLECTORS, Cargo.

Russel Cargo Reflectors.

	Net Each.
No. 420B. Heavy brass, 18-in. diam., 4-light cargo reflector, goose neck body,	$15.00
No. 420. Heavy brass, 18-in. diam., 4-light cargo reflector, wireless porcelain body.....	12.50
No. 420A. Steel bowl, 4-light, wireless porcelain body.....	9.00

REFLECTOR Clamps (see C).

REFLECTORS (see Shades).

REGISTERS, Car.

Sterling Fare Register No. 5.

Simple, durable, and with few parts. Two actuating arms, one for the trip wheels, the other for the totalizer wheels, are both moved by the slide.

All the wheels of each train are geared together. The improved interlocking system makes it impossible to work the machine except in the orderly way in which it is intended to be operated.

During registration red blinds screen the unit figures at both apertures until bell rings and lever

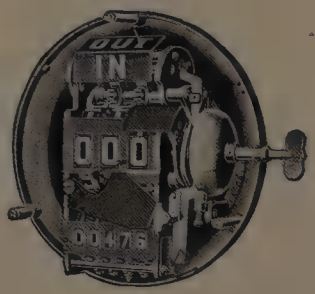


Cargo Reflector.

(*Continued on next page.*)



No. 5 Round. No. 5 Square.



No. 15.



No. 16.



Nos. 8 and 9.



No. 14.

REGISTERS, Car.

Sterling Fare Register No. 5 (Continued).

is released, so that if fare is not entirely recorded it will be obvious to every passenger.

The figures are exceptionally large and plain, being $1\frac{1}{16}$ inches long, white on black. Dial, steel with blue or black finish.

The register is furnished in either a round case 11 inches in diameter or a square case 9 inches square, the mechanism being the same in each case. Finish, oxidized copper, or natural color if desired. Trip train registers to 999 and can be reset to 0 at any point. The totalizer registers to 99,999, and returns to 0 automatically on completion.

Operating backs for either rod or cord or a combination of both are furnished.

	Net Each.
No. 5. Sterling register, round case	$22.00
„ 5. „ „ square „	23.00

Sterling Fare Register No. 15.

Single, full geared, cannot be tampered with or falsified, well balanced, and easy of operation.

Copper case, oxidized 10§-inch diameter, figures and train reading same as No. 5 above. Can be operated by cord or rod from either side of car. Dial is of steel, with dull black finish. Trip reads to 999, totalizer to 99,999.

No. 15. Sterling register.....net, each, $22.00

Sterling Fare Register No. 16.

Geared throughout, a complete double register, recording cash fares and transfers, or any two kinds of fares. When a cash fare is recorded the transfer sign remains invisible, and when the transfer is rung up the cash fare sign disappears.

Indicator figures are $1\frac{1}{16}$ inches long and totalizers are $\frac{9}{16}$ inch. May be used with either rod or cord from either side of car. Diameter, 12 inches. Trip reads to 999, totalizer to 99,999. Dial of steel, dark blue finish, case of copper oxidized.

No. 16. Sterling double-fare register, net ea., $35.00

Sterling Printing Fare Register No. 12.

Geared throughout, a printing register recording the unit, ten, and hundred figures of the totalizer by indenting on thick paper whenever the trip train is reset to zero. May be so locked at night that it cannot be rung up until reset for morning's run. Every alternate record printed records the machine number. Figures are same style as above; finish, oxidized copper. Trip train reads to 999, totalizer to 99,999.

No. 12. Sterling printing fare register, net ea., $30.00

Sterling Printing Fare Register No. 14.

Geared throughout, similar to No. 12, but designed for inter-urban roads using the zone system. Direction sign does not reverse with re-setting mechanism, and any number of records may be printed successively without changing the direction sign. Other particulars same as No. 12.

No. 14. Sterling printing fare register, net ea., $30.00

REGISTERS, Tally (see Counter).

REGISTER, Watchman's (see Clocks).

REGULATORS for Soldering and Flat Irons (see Irons).

REGULATORS, Organ (see Rheostats).

RELAY Bells (see B).

RELAYS, Telegraph (see Instruments, telegraph).

REMOVABLE Polesteps (see Step).

REPAIR Kit (see K).

REPLACERS, see following headings:

Replacers, Car.
" Lamp.

REPLACERS, Car (see also Jacks).



F. & P. Car Replacer.

F. & P. Car Replacer.

This replacer is 14 inches in length and weighs 23 to 24 lbs., being of convenient size for carrying in the vestibule or under the seat.

It has lugs on the under side which prevent slipping on any surface, including asphalt and cobbles.

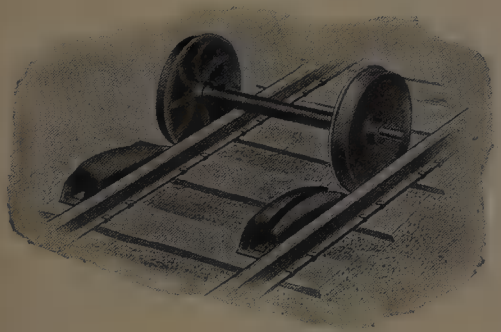
Made from the best quality of malleable iron, moulded in the strongest possible manner, and capable of supporting the heaviest of trucks. For many seasons they have been in successful use on snow-plows.

Per Pair.

Especially adapted for use on street-car lines, $5.30

The Aldon Car Replacers

Made in five sizes of cast steel or malleable iron, right and left on either side of the rail, and in either direction. These frogs lead the wheels by a very gradual lateral persuasion (at an angle of 8 degrees), which extends substantially over their entire length.



Aldon Car Replacer.

No. 1. Cast steel; weight, 200 lbs. per pair; suitable for heaviest equipment, and for rails of 100 lbs. or less $32.00

No. 2. Cast steel; weight, 180 lbs. per pair; suitable for all modern equipment, and for rails 85 lbs. or less 30.00

No. 3. Malleable iron; weight, 100 lbs. per pair; suitable for electric suburban service, light engines and cars, and for rails of 65 lbs. or less 24.00

No. 4. Malleable iron; weight, 50 lbs. per pair; suitable for industrial and mine railways, for equipment not exceeding 15 tons, and for rails 35 lbs. or less 20.00

No. 5. Malleable iron; weight, 40 lbs. per pair; suitable for street-car service on paved streets, 21 in. long by 6 in. wide, with sharp lugs to prevent slipping and spike holes for extreme conditions. Can be set at an angle to the rail and will lead wheels to the rail without injurious effect of successive dropping 10.00



Johnson Frogs.

The Johnson Frogs.

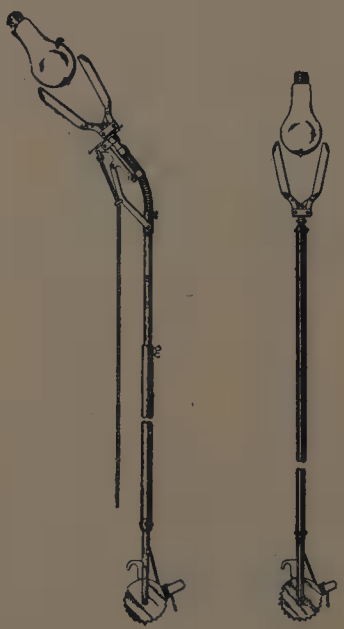
Three-point contact of support; small end entirely supported by rail, broad end on tie and rail.

A guard guides the wheel positively into proper position without jar or drop.

Straddles the rail and is prevented against flying from under the wheels in any direction. Never



No. 4. No. 5.



No. 3. No. 1.

REPLACERS, Car.

The Johnson Frogs (Continued).

forces the ties down from the rail when road bed is soft.

Gives electric connection to motors in re-railing.

Style.		Wt. Lbs.	Price.
AAA.	Jumbo replacer for largest engines	375	$40.00
AA.	Little giant replacer for tool car,	275	33.00
A.	Standard replacer	150	20.00
B.	Car replacer	110	16.50
C.	Standard electric car replacer	85	13.50
F.	Surface replacer	45	10.00
G.	Girder rail frog	180	24.00

REPLACERS, Lamp.

The Handy Bulb Cleaner.

This manipulator is for cleaning any candle-power lamps without removing them from their sockets. Will go inside any shade that the human hand will, and works automatically by pushing against bulb and turning handle. In ordering, state candle-power and shape of bulbs and whether it is to go inside of shades or not.

Style No. 4. Handy bulb cleaner, 3 feet..... $2.00

The Handy Switch and Socket Key Manipulator.

It will turn the key at any angle and at any height. Can be used for either electric or gas fixtures.

Style No. 5. Handy switch and socket manipulator, 3 feet..... $4.00
Each additional foot..... .75

Lamp Replacers.

This style is suitable for street lamps or any lamp that can be handled by a straight reach. It can be made telescopic. One 10 feet long weighs 3 pounds and may be easily carried on a bicycle. Made of light gauge brass (or of aluminum, 25 per cent extra, to order).

In ordering, state style, candle-power of lamps, shape of bulbs, length wanted (allow 4 feet for height of man), and whether telescopic or not. Three pairs of cleaners go with this style.

Style No. 1. Lamp replacer, 3 feet..... $3.50
Each additional foot..... .50

For lamps operated at an angle it is necessary to have a manipulator with an adjustable head. This style is also made of brass (or of aluminum at 25 per cent extra).

Style No. 3. Lamp replacer, 3 feet..... $5.00
Each additional foot..... .75

RETRIEVERS (see Catchers).

RHEOSTATS, see following headings:

Rheostats, Cutler-Hammer.
" Ward Leonard.
" Wirt.

RHEOSTATS, Cutler-Hammer.

C. & H. Motor Starting Rheostats

With automatic release. Protects the motor from the damage liable to follow an interrupted current.

In ordering, state maximum current to start

RHEOSTATS, Cutler-Hammer.



C. H. Starting Rheostat.

C. & H. Motor Starting Rheostats (Continued).

motor, voltage of motor, whether series, shunt, or compound wound.

H. P.	125 Volts.	Front.	240 Volts.	Front.	500 Volts.	Front.
¼	$5.00	A-A	$5.00	A-A	$5.50	A-A
½ to 2	6.60	A	6.60	A	7.00	A
3	7.30	A	7.30	A	7.50	A
4	12.00	B	9.00	A	9.00	A
5	12.20	B	11.00	A	11.00	A
7½	19.40	B	14.00	B	14.00	A
10	23.20	C	16.00	B	16.00	B
15	30.00	C	22.00	B	22.00	B
20	33.00	C	30.00	C	27.00	B
25	39.00	D	33.00	C-D	30.00	C
30	44.00	D	39.00	C-D	36.00	C-D
35	48.00	D	42.00	C-D	42.00	C-D
40	90.00	M-S	48.00	D	48.00	C-D
50	110.00	M-S	60.00	D	60.00	D

C. & H. Motor Speed Regulators.

With automatic release; holds the lever squarely over each segment and opens the circuit on failure of current supply.

In ordering, state horse-power and voltage of motor, whether series, shunt, or compound wound, and nature of machine which the motor is to operate.

All speed regulators above 5 horse-power 110 volts, 10 horse-power 220 volts, and 15 horse-power 500 volts, are equipped with renewable segments. Smaller sizes have button contacts, but, if desired, renewable segments will be furnished at an extra charge.



C. H. Speed Regulator.

H. P.	120 Volts. Ventilating Fan Type.	120 Volts. Machine Type.	220 Volts. Ventilating Fan Type.	220 Volts. Machine Type.	500 Volts. Ventilating Fan Type.	500 Volts. Machine Type.
¼	$10.00	$10.00	$10.00	$10.00	$11.00	$11.00
½	11.00	11.00	11.00	11.00	12.00	12.00
1	13.00	18.00	13.00	18.00	13.00	18.00
2	20.00	25.00	20.00	25.00	20.00	25.00
3	25.00	30.00	25.00	30.00	25.00	30.00
5	38.00	40.00	38.00	50.00	50.00	50.00
7½	50.00	50.00	50.00	62.00	60.00	62.00
10	65.00	65.00	65.00	65.00	75.00	85.00
15	90.00	90.00	70.00	70.00	92.00	102.00
20	105.00	115.00	90.00	100.00	110.00	120.00
25	135.00	135.00	130.00	130.00	130.00	130.00
30	150.00	150.00	140.00	140.00	140.00	140.00
35	180.00	180.00	180.00	180.00	180.00	180.00
40	220.00	220.00	200.00	200.00	200.00	200.00
50	270.00	270.00	250.00	250.00	250.00	250.00

For speed regulators without automatic release, deduct from above list prices as follows:

⅙ to 1	horse-power,	inclusive	$2.00
2 ,, 3	,,	,,	3.00
5 ,, 10	,,	,,	4.00
15 ,, 20	,,	,,	6.00
25 ,, 30	,,	,,	10.00
40 ,, 50	,,	,,	15 00

RHEOSTATS, Ward Leonard.

Generator Field Rheostats, 100 to 150 Volts.

Good results will be obtained by using a rheostat whose resistance is about equal to that of the field it is to regulate.

FF Type for Front of Switchboard.

Catalogue No.	Ohms of Rheostat.	Max. Amp. 1st Step (Max. Amp. through Field).	Amp. Capacity with Entire Rheostat in Circuit.	No. of Steps.	Diam. in Inches.	Ohms of Field to which Rheostat is suited.	List Price.
FF 1.5	300	.5	.25	35	8	250 to 300	$3.30
FF 1.6	240	.62	.31	35	8	200 ,, 250	3.30
FF 1.75	200	.75	.37	35	8	166 ,, 200	3.30
FF 11	150	1	.5	35	8	125 ,, 166	3.30
FF 11.2	120	1.2	.62	35	8	100 ,, 125	3.30
FF 11.5	100	1.5	.75	35	8	83 ,, 100	3.30
FF 12	75	2	1	35	8	62.5 ,, 83	3.30
FF 12.5	60	2.5	1.25	35	8	50 ,, 62.5	3.30
FF 13	50	3	1.5	35	8	42 ,, 50	3.30
FF 14	37.5	4	2	35	8	31 ,, 42	3.30
FF 15	30	5	2.5	51	12	25 ,, 31	4.65
FF 16	25	6	3	51	12	21 ,, 25	4.65
FF 18	18.75	8	4	51	12	15.6 ,, 21	4.65
FF 110	15	10	5	60	15	12.5 ,, 15.6	6.35
FF 112.5	12	12.5	6.2	60	15	10 ,, 12.5	6.35
FF 116	9.3	16	8	120	15	7.8 ,, 10	13.05
FF 120	7.5	20	10	120	15	6.2 ,, 7.8	13.05
FF 125	6	25	12.5	120	15	5 ,, 6.2	13.05
FF 130	5	30	15	120	15	4 ,, 5	19.15
FF 140	3.75	40	20	120	15	3 ,, 4	24.25



Type FF.

FB Type for Back of Switchboard.

FB 1.5	300	.5	.25	35	8	250 to 300	$5.65
FB 1.6	240	.62	.31	35	8	200 ,, 250	5.65
FB 1.75	200	.75	.37	35	8	166 ,, 200	5.65
FB 11	150	1	.5	35	8	125 ,, 166	5.65
FB 11.2	120	1.2	.62	35	8	100 ,, 125	5.65
FB 11.5	100	1.5	.75	35	8	83 ,, 100	5.65
FB 12	75	2	1	35	8	62.5 ,, 83	5.65
FB 12.5	60	2.5	1.25	35	8	50 ,, 62.5	5.65
FB 13	50	3	1.5	35	8	42 ,, 50	5.65
FB 14	37.5	4	2	35	8	31 ,, 42	5.65
FB 15	30	5	2.5	51	12	25 ,, 31	7.00
FB 16	25	6	3	51	12	21 ,, 25	7.00
FB 18	18.75	8	4	51	12	15.6 ,, 21	7.00
FB 110	15	10	5	60	15	12.5 ,, 15.6	8.70
FB 112.5	12	12.5	6.2	60	15	10 ,, 12.5	8.70
FB 116	9.3	16	8	120	15	7.8 ,, 10	15.40
FB 120	7.5	20	10	120	15	6.2 ,, 7.8	15.40
FB 125	6	25	12.5	120	15	5 ,, 6.2	15.40
FB 130	5	30	15	120	15	4 ,, 5	21.50
FB 140	3.75	40	20	120	15	3 ,, 4	26.60

Generator Field Rheostats, 200 to 300 Volts.

FF Type for Front of Switchboard.

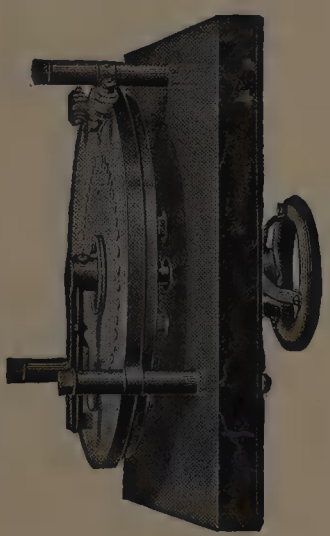
FF 21	300	1	.5	35	8	250 to 300	$3.30
FF 21.2	240	1.25	.62	35	8	200 ,, 240	3.30
FF 21.5	200	1.5	.75	35	8	166 ,, 200	3.30
FF 22	150	2	1	35	8	125 ,, 150	3.30
FF 22.5	120	2.5	1.3	51	12	100 ,, 120	4.65
FF 23	100	3	1.5	51	12	83 ,, 100	4.65
FF 24	75	4	2	51	12	62 ,, 75	4.65
FF 25	60	5	2.5	60	15	50 ,, 60	6.35
FF 26.2	48.5	6.25	3.2	60	15	40 ,, 48	6.35
FF 28	37	8	4	120	15	31 ,, 37	13.05
FF 210	30	10	5	120	15	25 ,, 30	13.05
FF 212	24	12.5	6.3	120	15	20 ,, 24	13.05
FF 215	20	15	7.5	120	15	16 ,, 20	19.15
FF 220	15	20	10	120	15	12 ,, 15	24.25

RHEOSTATS, Ward Leonard.

Generator Field Rheostats, 200 to 300 Volts (Continued).

FB Type for Back of Switchboard.

Catalogue No.	Ohms of Rheostat.	Max. Amp. 1st Step (Max. Amp. through Field).	Amp. Capacity with Entire Rheostat in Circuit.	No. of Steps.	Diam. in Inches.	Ohms of Field to which Rheostat is well suited.	List Price.
FB 21	300	1	.5	35	8	250 to 300	$5.65
FB 21.2	240	1.25	.62	35	8	200 ,, 240	5.65
FB 21.5	200	1.5	.75	35	8	166 ,, 200	5.65
FB 22	150	2	1	35	8	125 ,, 150	5.65
FB 22.5	120	2.5	1.3	51	12	100 ,, 120	7.00
FB 23	100	3	1.5	51	12	83 ,, 100	7.00
FB 24	75	4	2	51	12	62 ,, 75	7.00
FB 25	60	5	2.5	60	15	50 ,, 60	8.70
FB 26.2	48.5	6.25	3.2	60	15	40 ,, 48	8.70
FB 28	37	8	4	120	15	31 ,, 37	15.40
FB 210	30	10	5	120	15	25 ,, 30	15.40
FB 212	24	12.5	6.3	120	15	20 ,, 24	15.40
FB 215	20	15	7.5	120	15	16 ,, 20	21.50
FB 220	15	20	10	120	15	12 ,, 15	26.60



Type FB.

Generator Field Rheostats, 400 to 600 Volts.

Good results will be obtained by using a rheostat whose resistance is about equal to that of the field it is to regulate.

FF Type for Front of Switchboard.

FF 6.9	1200	.9	.4	75	15	1000 to 1200	$10.35
FF 6.7	960	.7	.35	51	12	800 ,, 960	7.85
FF 6.75	800	.75	.38	51	12	670 ,, 800	7.85
FF 61	600	1	.5	51	12	500 ,, 600	5.85
FF 61.2	480	1.2	.6	51	12	400 ,, 480	4.65
FF 61.5	400	1.5	.75	51	12	333 ,, 400	4.65
FF 62	300	2	1	51	12	250 ,, 300	4.65
FF 62.5	240	2.5	1.2	60	15	200 ,, 240	6.35
FF 63	200	3	1.5	60	15	166 ,, 200	6.35
FF 64	150	4	2	120	15	125 ,, 150	13.05
FF 65	120	5	2.5	120	15	100 ,, 120	13.05
FF 66	96	6	3	120	15	80 ,, 96	13.05
FF 67.5	80	7.5	3.75	120	15	64 ,, 80	19.15
FF 610	60	10	5	120	15	48 ,, 60	24.25

FB Type for Back of Switchboard.

FB 6.9	1200	.9	.4	75	15	1000 to 1200	$12.70
FB 6.7	960	.7	.35	51	12	800 ,, 960	10.20
FB 6.75	800	.75	.38	51	12	670 ,, 800	10.20
FB 61	600	1	.5	51	12	500 ,, 600	8.20
FB 61.2	480	1.2	.6	51	12	400 ,, 480	7.00
FB 61.5	400	1.5	.75	51	12	333 ,, 400	7.00
FB 62	300	2	1	51	12	250 ,, 300	7.00
FB 62.5	240	2.5	1.2	60	15	200 ,, 240	8.70
FB 63	200	3	1.5	60	15	166 ,, 200	8.70
FB 64	150	4	2	120	15	125 ,, 150	15.40
FB 65	120	5	2.5	120	15	100 ,, 120	15.40
FB 66	96	6	3	120	15	80 ,, 96	15.40
FB 67.5	80	7.5	3.75	120	15	64 ,, 80	21.50
FB 610	60	10	5	120	15	48 ,, 60	26.60

RHEOSTATS, Ward Leonard (Continued).

Motor Starters.

SUE Type, No-Voltage Release.

Automatically restoring rheostat contact lever to its starting position, in case the current supplied to the motor be interrupted.

Can be used to start any kind of continuous current motor, whether shunt wound, series wound, compound wound, separately excited, or any other type.

To be used for *starting* a motor from rest and accelerating it to full speed under any proper conditions met with in practice, but not to be used for operating the motor at reduced speed for longer periods than this.



Type "SUE."

Catalogue No.	H. P. of Motor.	Volts.	Amps. (Full Torque).	Ohms (approximate).	Face Dimensions.	Price.
SUE 12	¼	125	2	40	6 x 6	$2.80
SUE 21	¼	250	1	160	6 x 6	2.80
SUE 5.5	¼	500	.5	640	6 x 6	3.10
SUE 14	½	125	4	20	6 x 6	3.75
SUE 22	½	250	2	80	6 x 6	3.75
SUE 51	½	500	1	320	6 x 6	4.00
SUE 18	1	125	8	10	6 x 6	3.75
SUE 24	1	250	4	40	6 x 6	3.75
SUE 52	1	500	2	160	6 x 6	4.00
SUE 116	2	125	16	5	6 x 6	3.75
SUE 28	2	250	8	20	6 x 6	3.75
SUE 54	2	500	4	80	6 x 6	4.00
SUE 124	3	125	24	3.3	7¼ x 8¼	4.25
SUE 212	3	250	12	13.3	7¼ x 8¼	4.25
SUE 56	3	500	6	53.3	7¼ x 8¼	4.25
SUE 140	5	125	40	2	7¼ x 8¼	6.90
SUE 220	5	250	20	8	7¼ x 8¼	6.10
SUE 510	5	500	10	32	7¼ x 8¼	6.10
SUE 160	7½	125	60	1.3	10¾ x 12	11.00
SUE 230	7½	250	30	5.3	7¼ x 8¼	8.00
SUE 515	7½	500	15	21.3	7¼ x 8¼	8.00
SUE 180	10	125	80	1	10¾ x 12	13.00
SUE 240	10	250	40	4	7¼ x 8¼	9.00
SUE 520	10	500	20	16	7¼ x 8¼	9.00
SUE 1120	15	125	120	.66	10¾ x 12	17.00
SUE 260	15	250	60	2.6	10¾ x 12	12.50
SUE 530	15	500	30	10.6	10¾ x 12	12.50
SUE 1150	20	125	150	.53	15 x 17	18.50
SUE 275	20	250	75	2.1	15 x 17	17.00
SUE 538	20	500	38	8.4	15 x 17	15.25
SUE 1190	25	125	190	.42	15 x 17	22.00
SUE 295	25	250	95	1.7	15 x 17	18.50
SUE 548	25	500	48	6.6	15 x 17	17.00
SUE 1230	30	125	230	.35	16½ x 25	25.00
SUE 2115	30	250	115	1.39	15 x 17	22.00
SUE 558	30	500	58	5.52	15 x 17	20.25
SUE 1288	40	125	288	.28	16½ x 25	39.50
SUE 2144	40	250	144	1.1	16½ x 25	27.00
SUE 572	40	500	72	4.4	16½ x 25	27.00
SUE 1360	50	125	360	.22	16½ x 25	45.00
SUE 2180	50	250	180	.9	16½ x 25	34.00
SUE 590	50	500	90	3.6	16½ x 25	34.00

RHEOSTATS, Ward Leonard.

Motor Starters (Continued).

SKE Type Overload and No-Voltage Release.

Automatically restoring rheostat lever to starting position in case the voltage fails, and also opening line circuit by automatic magnetic circuit breaker in case the current during starting or while at full speed becomes excessive from any cause.

Can be used to start any kind of continuous current motor, whether shunt wound, series wound, compound wound, separately excited, or any other type.

To be used for *starting* a motor from rest and accelerating it to full speed under any proper conditions met with in practice, but not to be used for operating the motor at reduced speed for longer periods than this.



Type SKE.

Catalogue No.	H. P. of Motor.	Volts.	Amps. (Full Torque).	Ohms (approximate).	Face Dimensions.	Price.
SKE 14	½	125	4	20	7¼ x 8¼	$8.00
SKE 22	½	250	2	80	7¼ x 8¼	8.00
SKE 51	½	500	1	320	7¼ x 8¼	8.00
SKE 18	1	125	8	10	7¼ x 8¼	8.00
SKE 24	1	250	4	40	7¼ x 8¼	8.00
SKE 52	1	500	2	160	7¼ x 8¼	8.00
SKE 116	2	125	16	5	7¼ x 8¼	8.00
SKE 28	2	250	8	20	7¼ x 8¼	8.00
SKE 54	2	500	4	80	7¼ x 8¼	8.00
SKE 124	3	125	24	3.3	7¼ x 8¼	8.00
SKE 212	3	250	12	13.3	7¼ x 8¼	8.00
SKE 56	3	500	6	53.3	7¼ x 8¼	8.00
SKE 140	5	125	40	2	7¼ x 8¼	9.00
SKE 220	5	250	20	8	7¼ x 8¼	9.00
SKE 510	5	500	10	32	7¼ x 8¼	9.00
SKE 160	7½	125	60	1.3	10¾ x 12	14.40
SKE 230	7½	250	30	5.3	7¼ x 8¼	14.40
SKE 515	7½	500	15	21.3	7¼ x 8¼	14.40
SKE 180	10	125	80	1	10¾ x 12	14.70
SKE 240	10	250	40	4	7¼ x 8¼	14.70
SKE 520	10	500	20	16	7¼ x 8¼	14.70
SKE 1120	15	125	120	.66	10¾ x 12	20.00
SKE 260	15	250	60	2.6	10¾ x 12	16.00
SKE 530	15	500	30	10.6	10¾ x 12	16.00
SKE 1150	20	125	150	.53	15 x 17	27.80
SKE 275	20	250	75	2.1	15 x 17	24.00
SKE 538	20	500	38	8.4	15 x 17	24.00
SKE 1190	25	125	190	.42	15 x 17	31.00
SKE 295	25	250	95	1.7	15 x 17	25.00
SKE 548	25	500	48	6.6	15 x 17	25.00
SKE 1230	30	125	230	.35	16½ x 25	Prices
SKE 2115	30	250	115	1.39	15 x 17	on
SKE 558	30	500	58	5.52	15 x 17	appl'n.
SKE 1288	40	125	288	.28	16½ x 25	Prices
SKE 2144	40	250	144	1.1	16½ x 25	on
SKE 572	40	500	72	4.4	16½ x 25	appl'n.
SKE 1360	50	125	360	.22	16½ x 25	Prices
SKE 2180	50	250	180	.9	16½ x 25	on
SKE 590	50	500	90	3.6	16½ x 25	appl'n.

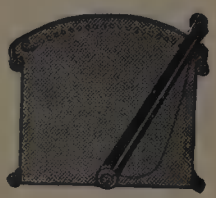
RHEOSTATS, Ward Leonard (Continued),

Motor Speed Controllers.
Type R.

For continuous duty. Resistance in form of enameled plates. Having same ampere capacity throughout. (May also be used for battery charging rheostats.)



Type R, Front View.



Type R, Rear View.

Catalogue No.	Motor Speed Regulating Duty to which Rheostat is well suited. H. P.	Voltage.	Ohms.	Maximum Amps. Continuous Duty.	Maximum Volts absorbed at Max. Amps.	Maximum Watts dissipated, Continuous Duty.	No. of Steps.	Dimensions in Inches.	Price
R	1.8 $\frac{1}{16}$	100–150	150	.8	120	100	10	$5\frac{1}{2}$ x $5\frac{1}{2}$	$2.05
R	2.4 to $\frac{1}{12}$	200–300	600	.4	240	100	13	7 x 7	2.75
R	11.6 $\frac{1}{8}$	100–150	75	1.6	120	192	13	7 x 7	2.75
R	2.8 to	200–300	300	.8	240	192	13	7 x 7	2.75
R	5.4 $\frac{1}{6}$	400–600	1200	.4	450	192	20	11 x 11	4.25
R	12.4 $\frac{1}{6}$	100–150	40	2.4	96	170	13	7 x 7	2.75
R	21.2 to	200–300	120	1.2	192	170	13	7 x 7	2.75
R	5.6 $\frac{1}{4}$	400–600	480	.6	288	170	13	7 x 7	2.75
R	14 $\frac{1}{2}$	100–150	20	4	80	320	16	9 x 9	3.50
R	22 $\frac{1}{2}$	200–300	80	2	160	320	16	9 x 9	3.50
R	51 $\frac{1}{2}$	400–600	320	1	320	320	16	9 x 9	3.50
R	716 1	50– 80	2.5	16	40	640	12	11 x 11	4.25
R	18 1	100–150	10	8	80	640	12	11 x 11	4.25
R	24 1	200–300	40	4	160	640	12	11 x 11	4.25
R	52 1	400–600	160	2	320	640	12	11 x 11	4.25
R	732 2	50– 80	1.25	32	40	1280	14	14 x 14	7.75
R	116 2	100–150	5	16	80	1280	14	14 x 14	7.75
R	28 2	200–300	20	8	160	1280	14	14 x 14	7.75
R	54 2	400–600	80	4	320	1280	14	14 x 14	7.75
R	748 3	50– 80	.8	48	40	1920	14	15 x 24	16.00
R	124 3	100–150	3.2	24	80	1920	14	15 x 24	16.00
R	212 3	200–300	13	12	160	1920	14	15 x 24	16.00
R	56 3	400–600	53	6	320	1920	14	15 x 24	16.00
R	764 4	50– 80	.63	64	40	2560	14	15 x 24	17.00
R	132 4	100–150	2.5	32	80	2560	14	15 x 24	17.00
R	216 4	200–300	10	16	160	2560	14	15 x 24	17.00
R	58 4	400–600	40	8	320	2560	14	15 x 24	17.00
R	780 5	50– 80	.5	80	40	3200	14	15 x 24	17.00
R	140 5	100–150	2	40	80	3200	14	15 x 24	17.00
R	220 5	200–300	8	20	160	3200	14	15 x 24	17.00
R	510 5	400–600	32	10	320	3200	14	15 x 24	17.00
R	7120 $7\frac{1}{2}$	50– 80	.33	120	40	4800	14	2–15 x 24	30.00
R	160 $7\frac{1}{2}$	100–150	1.33	60	80	4800	14	2–15 x 24	30.00
R	230 $7\frac{1}{2}$	200–300	5.3	30	160	4800	14	2–15 x 24	30.00
R	515 $7\frac{1}{2}$	400–600	21	15	320	4800	14	2–15 x 24	30.00
R	7160 10	50– 80	.25	160	40	6400	14	2–15 x 24	32.00
R	.180 10	100–150	1	80	80	6400	14	2–15 x 24	32.00
R	240 10	200–300	4	40	160	6400	14	2–15 x 24	32.00
R	520 10	400–600	16	20	320	6400	14	2–15 x 24	32.00
R	7240 15	50– 80	.16	240	40	9600	14	3–15 x 24	60.00
R	1120 15	100–150	.66	120	80	9600	14	3–15 x 24	48.00
R	260 15	200–300	2.66	60	160	9600	14	3–15 x 24	48.00
R	530 15	400–600	10.66	30	320	9600	14	3–15 x 24	48.00
R	7320 20	50– 80	.12	320	40	12800	14	4–15 x 24	75.00
R	1160 20	100–150	.50	160	80	12800	14	4–15 x 24	62.00
R	280 20	200–300	2	80	160	12800	14	4–15 x 24	62.00
R	540 20	400–600	8	40	320	12800	14	4–15 x 24	62.00

RHEOSTATS, Ward Leonard (Continued).

MP Type Battery Charging Rheostats.

Suitable for charging any number of cells of battery (at the voltage listed), at any rate, taking the maximum amperes listed as a maximum and one tenth of these amperes as a minimum.

These rheostats have at least four times wider range of the charging current than ordinary charging rheostats.

With the MP 140 any ordinary size automobile with any number of cells from 1 to 50, or any ignition storage battery with any number of cells, can be charged at any desired rate, from 4 amperes to 40 amperes on a 125-volt circuit.



Rear View Type MP.

All sparking upon these rheostats has been avoided by using such a large number of steps that the difference in potential between consecutive steps has been reduced to a point below which any arcing can occur.

In selecting the proper rheostat it is only necessary to know the maximum amperes at which it is desired to charge and the line voltage of the charging circuit. Any rate of charge can be obtained between the maximum and minimum amperes shown in the table.

Size of plate: width, 15 in.; height, 24 in.; depth, 4 in.

Catalogue No.	Line Voltage.	Maximum Charging Current.	Minimum Charging Current.	Resistance Ohms (approximate).	No. of Steps.	Price.
MP 120	125	20	2	62	50	$14.00
MP 210	250	10	1	250	50	14.00
MP 55	500	5	.5	1000	50	14.00
MP 140	125	40	4	31	100	32.00
MP 220	250	20	2	125	100	32.00
MP 510	500	10	1	500	100	32.00
MP 160	125	60	6	21	100	48.00
MP 230	250	30	3	83	100	48.00
MP 515	500	15	1.5	333	100	48.00
MP 180	125	80	8	15.6	100	64.00
MP 240	250	40	4	62	100	64.00
MP 520	500	20	2	250	100	64.00
MP 1100	125	100	10	12.5	100	80.00
MP 250	250	50	5	50	100	80.00
MP 525	500	25	2.5	200	100	80.00
MP 1120	125	120	12	10.4	100	96.00
MP 260	250	60	6	41.6	100	96.00
MP 530	500	30	3	167	100	96.00

Add $7.50 list for back of board mounting.

RHEOSTATS, Wirt.

Battery Charging Rheostats, 110 Volts.

These rheostats are made in four types: front and back of board, horizontal edgewise, and vertical edgewise.

In the horizontal edgewise type the handle projects from the front of the case. The vertical type is similar, but with the handle projecting from top of case.

They will withstand temporarily a heavy overload and are not affected by acid fumes.



FC Type.

Front of Board Type FC.

Catalogue No.	No. of Cells.	Type.	Amperes, Max.	Amperes, Min.	Resistance in Ohms.	No. of Steps.	List.
FC 112	12–20	Lead	20	5	17	12	$75.00
FC 122	20–30	,,	20	5	13	12	71.00
FC 123	20–30	,,	30	10	6.5	15	71.00
FC 133	30–40	,,	30	10	4	15	64.00
FC 134	30–40	,,	40	10	4	15	69.00
FC 143	40–44	,,	30	10	1.5	15	44.50
FC 144	40–44	,,	40	10	1.3	15	44.50
FC 145	40–44	,,	50	10	1.3	15	52.00
FC 146	40–44	,,	60	10	1.3	15	62.00
FC 148	40–44	,,	80	15	1	15	75.00
FC 150	60	Edison	100	25	.6	12	85.00
FC 152	60	,,	120	30	.5	12	95.00

RHEOSTATS, Wirt.

Battery Charging Rheostats, 110 Volts
(Continued).



HC Type.

Back of Board Type BC.

Catalogue No.	No. of Cells.	Type.	Amperes, Max.	Amperes, Min.	Resistance in Ohms.	No. of Steps.	List.
BC 112	12–20	Lead	20	5	17	12	$84.50
BC 122	20–30	,,	20	5	13	12	80.50
BC 123	20–30	,,	30	10	6.5	15	80.50
BC 133	30–40	,,	30	10	4.	15	73.50
BC 134	30–40	,,	40	10	4.	15	78.50
BC 143	40–44	,,	30	10	1.5	15	54.00
BC 144	40–44	,,	40	10	1.3	15	54.00
BC 145	40–44	,,	50	10	1.3	15	61.50
BC 146	40–44	,,	60	10	1.3	15	71.50
BC 148	40–44	,,	80	15	1	15	84.50
BC 150	60	Edison	100	25	.6	12	94.50
BC 152	60	,,	120	30	.5	12	104.50

Horizontal Edgewise, Type HC.

HC 112	12–20	Lead	20	5	17	12	$76.00
HC 122	20–30	,,	20	5	13	12	72.00
HC 123	20–30	,,	30	10	6.5	15	72.00
HC 133	30–40	,,	30	10	4.	15	65.00
HC 134	30–40	,,	40	10	4	15	71.00
HC 143	40–44	,,	30	10	1	15	46.50
HC 144	40–44	,,	40	10	1.3	15	46.50
HC 145	40–44	,,	50	10	1.3	15	54.00
HC 146	40–44	,,	60	10	1.3	15	64.00
HC 148	40–44	,,	80	15	1.	15	77.00
HC 150	60	Edison	100	25	.6	12	87.00
HC 152	60	,,	120	30	.5	12	97.00

Vertical Edgewise, Type VC.

VC 112	12–20	Lead	20	5	17	12	$76.00
VC 122	20–30	,,	20	5	13	12	72.00
VC 123	20–30	,,	30	10	6.5	15	72.00
VC 133	30–40	,,	30	10	4	15	65.00
VC 134	30–40	,,	40	10	4	15	71.00
VC 143	40–44	,,	30	10	1.5	15	46.50
VC 144	40–44	,,	40	10	1.3	15	46.50
VC 145	40–44	,,	50	10	1.3	15	54.00
VC 146	40–44	,,	60	10	1.3	15	64.00
VC 148	40–44	,,	80	15	1	15	77.00
VC 150	60	Edison	100	25	.6	12	87.00
VC 152	60	,,	120	50	.5	12	97.00

Organ Regulators.



Organ Regulator.

This is a resistance for use in series with a motor starter for the automatic regulation of the speed of the motor used for pumping up the organ bellows.

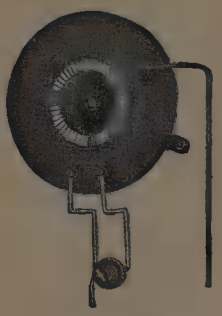
A cord is wound round the central spindle or drum of the regulator and pulled taut by a weight. When the bellows rises the cord operated by the weight revolves the regulator arm so as to cut in resistance and make the motor run slower, and when the bellows falls the opposite effect is produced, thereby controlling the amount of air in the bellows automatically.

The weights and cord are not included, but can be furnished at $7 added to list price.

The horse power indicated refers to *maximum* load on motor, *not* to its size.

Cat. No.	H. P.	Voltage of Circuit.	Amperes Capacity. All Res. Out.	All Res. In.	Res.	No. of Steps.	Size.	No. of Plates.	Price.
H-6010	¼	110	2	.5	200	50	14	1	$36.00
H-6011	½	110	4	1	125	50	16	1	42.00
H-6012	1	110	8	2	60	50	18	1	50.00
H-6110	¼	220	1	.25	800	100	12	2	58.50
H-6111	½	220	2	.5	400	100	12	2	58.50
H-6112	1	220	4	1	225	100	14	2	72.00

RHEOSTATS, Wirt (Continued).



No. IC-113.

Rheostats for Charging Ignition Batteries.

The round type of rheostat is used for capacities of less than 6 amperes. A rotary heater switch is used in connection with the resistance plate to vary the charging rate. The switch will give currents of approximately $\frac{1}{3}$, $\frac{2}{3}$, and full charging rate.

The prices given below include resistance plate and rotary switch.

Cat. No.	No. of Cells.	Maximum Amperes.	Amperes at each Step.	Dia. of Plate in Inches.	Price.
1C-113	2–4	3	0, 1., 2., 3.	10	$18.00
1C-115	2–4	5	0, 1.5, 3.5, 5.	14	23.50
1C-117	2–4	7	0, 2.2, 4.5, 7.	18	35.50

RHEOSTATS (for battery motors).



No. 24.

Small Wood Base Battery Motor Rheostats

For regulating the speed of small battery motors (see M), and controlling battery lamps.

Nicely finished with nickel trimmings and rubber handles.

No. 24. Rheostat.....each, $ .80

New Rheostat and Switch.

To be used in connection with No. 9 plating dynamo (see Motors, battery) to regulate the current so that any required amount may be allowed to flow through tank.

No. 24A. Rheostat.....each, $1.00



No. 24A.

RHUMKORFF Coil (see C).

RIDGE Irons (see Brackets, iron).

RINGER (see Generator, secondary, and Telephones).

RINGS, Bead (see Fringe).

RINGS, Bridle.

Star Enameled Bridle Ring.

The enameled rings are made of the best steel wire, thoroughly covered by three coats of tough gray glass enamel. Their form is such that while the wires can be easily inserted and removed, they cannot get out or be displaced by any action of wind or strain.

We recommend the enameled rings, but the brass and galvanized ones are being largely used and give good satisfaction.

Styles F and G are especially adapted for carrying wires at the side of terminal poles from the cable boxes to the cross arms.

The following styles are furnished in enameled, galvanized, japanned, plain steel, and brass.:



Bridle Rings.

	Eye.	Opening.	Shank.	Steel.
Style A	$1\frac{5}{8}$ in.	$\frac{1}{4}$ in.	$1\frac{1}{4}$ in.	$\frac{5}{16}$
,, B	$1\frac{5}{8}$,,	$\frac{1}{4}$,,	$\frac{7}{8}$,,	$\frac{5}{16}$
,, C	$1\frac{1}{4}$,,	$\frac{1}{4}$,,	$1\frac{1}{4}$,,	$\frac{5}{16}$
,, D	$1\frac{1}{4}$,,	$\frac{1}{4}$,,	$\frac{7}{8}$,,	$\frac{5}{16}$
,, E	$\frac{5}{8}$,,	$\frac{1}{4}$,,	$\frac{7}{8}$,,	$\frac{5}{32}$
,, F	3 ,,	$\frac{1}{4}$,,	$1\frac{1}{4}$,,	$\frac{5}{16}$
,, G	3 ,,	$\frac{1}{4}$,,	$1\frac{3}{4}$,,	$\frac{5}{16}$

Prices upon application.

When the rings are used on brick or stone walls, the star screw anchor is particularly valuable.

For Styles A, B, C, D, F, G, use No. 18 x 1 anchors.

For Style E use No. 10 x $\frac{3}{4}$ anchors (see Bolts, expansion).

RINGS, Shade (see Holders, shade).

RINGS, Socket (see also Bushings, socket).

Edison Socket Rings.

The composition rings are the styles commonly used in N. E. code Edison sockets.



No. 50846. No. 31796. No. 50866.

	Std. Pkg.	Each.
No. 50846. Composition socket ring, double flange	100	$ .04
No. 50808. Hard rubber socket ring, double flange	100	.15
No. 31796. Composition socket ring, single flange	100	.04
No. 31797. Hard rubber socket ring, single flange	100	.15
No. 50866. Porcelain socket ring, single flange	100	.05
No. 9399. Soft rubber ring (for W. P. sockets)	100	.03½

RISER'S Outfit (see O).

RODS, Anchor or Guy.

Guy Rods, No. S-1990.

The sizes most commonly used are ⅝ x 6 and ⅝ x 8, galvanized.

They are furnished with square nut, but no washer, and weights given are approximate only.



Guy Rod.

Size. In. Ft.	Wt. per 100.	Galv'd per 100.	Size. In. Ft.	Wt. per 100.	Galv'd per 100.
⅝ x 5	589	$42.00	¾ x 6	1000	$71.00
⅝ x 6	693	50.00	¾ x 7	1150	81.00
⅝ x 7	797	57.00	¾ x 8	1300	92.00
⅝ x 8	900	65.00	¾ x 9	1450	102.00

Size. In. Ft.	Wt. per 100.	Galv'd per 100.
1 x 8	2374	$187.00
1 x 10	2886	131.00
1 x 12	3420	275.00
1 x 14	3954	319.00

RODS, Conduit.

Cope's Patent Quick Coupling Conduit Rod.



Cope's Rod.

These couplings are of steel and made in the best possible manner.

The rods are made in 3-foot and 4-foot lengths, of carefully selected hickory and are passed through three processes of toughening before being used.

These rods should not be compared with inferior ones thrown on the market by parties unfamiliar with the requirements of rods. A good rod is worth ten inferior ones.

3-ft. rods	each,	$1.50
4 ,, ,,	,,	1.70

RODS, Ground (see Arresters, lightning).

Ground Rods, No. S-1991.

These rods are used for grounding telephone circuits. In ordering please specify in which end the hole for wire is to be drilled. Some prefer hole in pointed end, as this gives a better ground connection.



Ground Rod.

	Plain per 100.	Galv'd per 100.
½-in. x 6-ft. ground rods	$24.00	$32.00
½ ,, x 7 ,, ,, ,,	27.00	37.00
½ ,, x 8 ,, ,, ,,	32.00	43.00

RODS, Rubber (see Rubber).

RODS, Tie.

Tie Rods.

We are prepared to quote prices on application and receipt of specifications for tie rods of standard or special forms. Send drawing with full details, quantity, etc.

ROLLERS, Shade (see S).

ROLLINSON Bell Ringer (see Generator, secondary).

ROOT Scrapers (see S).

ROPE, Banner Core.

Cutter's Banner Core Rope, No. S-1992.



Banner Core Rope.

A fine braided cotton rope with a weatherproof finish, which turns water and makes it extra durable.

$\frac{3}{16}$-inch (about 48 ft. per lb.)
$\frac{1}{4}$,, ,, 40 ,, ,, ,,
$\frac{5}{16}$,, ,, 32 ,, ,, ,,
$\frac{3}{8}$,, ,, 17 ,, ,, ,,
$\frac{1}{2}$,, ,, $12\frac{1}{2}$,, ,, ,,

Any size.....net, per lb., $ .32

ROPE Clamps (see C).

ROPE Cleats (see Cleat).

ROPE Insulator, High Voltage (see Insulators, rope).

ROPE, Manila.

Manila Rope.



Manila Rope.

Sizes under $\frac{1}{2}$-inch diam.....per lb., $ .30
,, over $\frac{1}{2}$,, ,, ... ,, .28

Cir. in Inches.	Diam. Inches.	Wt. of 100 Fathoms.	Weight Tarred.	Break. Strain, Lbs.	No. of Ft. in 1 Lb.
6 thread	$\frac{3}{16}$	12 lbs.	17 lbs.	540	50
9 ,,	$\frac{1}{4}$	18 ,,	24 ,,	780	$33\frac{1}{3}$
12 ,,	$\frac{5}{16}$	24 ,,	34 ,,	1000	25
15 ,,	$\frac{3}{8}$	30 ,,	45 ,,	1280	20
$1\frac{1}{4}$	$\frac{7}{16}$	37 ,,	50 ,,	1562	$17\frac{2}{3}$
$1\frac{1}{2}$	$\frac{1}{2}$	46 ,,	55 ,,	2250	13
$1\frac{3}{4}$	$\frac{9}{16}$	65 ,,	75 ,,	3062	$9\frac{1}{4}$
2	$\frac{5}{8}$	80 ,,	100 ,,	4000	$7\frac{1}{2}$
$2\frac{1}{4}$	$\frac{3}{4}$	98 ,,	125 ,,	5000	6
$2\frac{1}{2}$	$\frac{13}{16}$	120 ,,	155 ,,	6250	5
$2\frac{3}{4}$	$\frac{7}{8}$	142 ,,	190 ,,	7500	$4\frac{1}{4}$
3	1	170 ,,	225 ,,	9000	$3\frac{1}{2}$

ROPE, Trimmer's.

Trimmer's Rope



Trimmer's Rope.

Is a 30-foot hoisting rope, with a snap-hook at one end and 6 rings near the other end. The rings can readily be clamped at any desired intervals, so as to accommodate lamps hung at various heights above the street.

No. S-1993. Trimmer's rope.....each, $1.25

ROPE, Wire.

Mast-Arm Rope.



Mast-Arm Rope.

A galvanized flexible rope for supporting arc lamps, etc. Suitable for running over pulleys. Composed of 9 strands and a cotton centre, 4 wires to the strand.

	Wt. per Ft. in Lbs.	Aprox. breaking Strain in Lbs.		List.
No. S-1994. $\frac{3}{8}$-in. diam.	.158	2300	per ft., $	.05
,, S-1995. $\frac{5}{16}$,, ,,	.109	1700	,,	$.03\frac{1}{2}$
,, S-1996. $\frac{1}{4}$,, ,,	.070	1100	,,	$.02\frac{3}{4}$
,, S-1997. Cutter's ebony wire rope,			net, per ft.,	.03

ROPE, Wire (Continued).



Galvanized Steel Wire Strand.

Galvanized Steel Wire Strands.

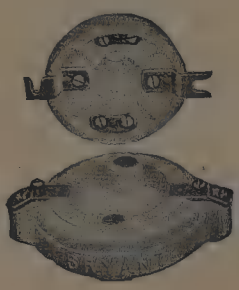
Composed of 7 wires twisted together.

These galvanized steel strands are largely employed as span wire in electric railway work, as guys, and in some cases as a messenger or suspension cable for hanging aërial cables.

Made from wires of high tensile strength and heavily galvanized.

	Diameter in Inches.	Approx. Weight per 1000 Ft. Lbs.	Approx. Strength in Lbs.	List Price per 100 Ft.
No. S-1998	$\frac{1}{2}$	510	8500	$4.50
,, S-1999	$\frac{7}{16}$	415	6500	3.75
,, S-2000	$\frac{3}{8}$	295	5000	2.75
,, S-2001	$\frac{5}{16}$	210	3800	2.25
,, S-2002	$\frac{1}{4}$	125	2300	1.75
,, S-2003	$\frac{3}{32}$	95	1800	1.50
,, S-2004	$\frac{3}{16}$	75	1400	1.25
,, S-2005	$\frac{5}{32}$	55	900	1.15
,, S-2006	$\frac{1}{8}$	32	500	1.00
,, S-2007	$\frac{3}{32}$	20	400	.80

Regularly furnished in coils of 500 feet.



No. 950.



No. 870.

ROSES, Speaking Tube (see Tube, speaking).

ROSETTE Bell (see Bell).

ROSETTES, see following headings:

Rosettes, Bryant.
,, General Electric.
,, Norbitt.
,, Paiste.



No. 871.



No. 926.

ROSETTES, Bryant.

Bryant K. W. Rosettes, 125 Volts, Fusible.

		Each.
No. 950.	Cleat rosette, with stamped lugs, Standard package, 250. Interchangeable caps.	$ .28
No. 870.	Cleat rosette, with cast lugs.... Standard package, 250. Interchangeable caps.	.29
No. 871.	Concealed rosette..... Standard package, 250. Interchangeable caps.	.28
No. 926.	Moulding rosette..... Standard package, 250. Interchangeable caps.	.28
No. 1426.	Square moulding rosette, 3-wire, Standard package, 250. Interchangeable caps.	.31
No. 872.	Combination rosette..... Standard package, 250. Interchangeable caps.	.28
No. 873.	Bracket rosette, concealed.....	.36
,, 1176.	,, ,, cleat.....	.36
,, 1177.	,, ,, square moulding	.36
,, 1402.	,, ,, combination ... Standard package, 100. Interchangeable caps.	.36
No. 1073.	Bracket rosette, concealed, with brass thimble.....	.36
No. 1178.	Bracket rosette, cleat, with brass thimble.....	.36
No. 1179.	Bracket rosette, square moulding, with brass thimble.....	.36
No. 1403.	Bracket rosette, combination, with brass thimble..... Standard package, 100. Interchangeable caps.	36



No. 1426.



No. 872.



No. 873.



No. 1179.

ROSETTES, Bryant (Continued).



No. 1501.



No. 869.



No. 1247.

Bryant Junior Rosettes, 125 Volts, Fusible.

No. 1501. Bryant Junior rosette, cleat.....each, $ .15
,, 1502. ,, ,, ,, concealed, ,, .15
,, 1503. ,, ,, ,, square base for concealed or moulding work..each, .15
Standard package, 500.
Caps interchangeable on all Junior bases.

Bryant Fuseless Rosette, 250 Volts.

No. 869. Fuseless cleat rosette, without base, each, $ .12
No. 1247. Base for same..... ,, .04
Standard package, 500.



No. 1499.



No. 1999.

Bryant K. P. Fuseless Rosette, 250 Volts.

No. 1499. K. P. fuseless cleat rosette.....each, $ .16
,, 1710. ,, ,, concealed rosette, ,, .16
,, 1497. ,, ,, moulding rosette.. ,, .16
Standard package, 500.

Bryant Junior Fuseless Rosette.

No. 1999. Bryant Jr. fuseless rosette.....each, $ .12
Standard package, 500.



No. 965.

Bryant Combined Cleat and Rosette, Fusible.

A fusible rosette in the form of a cleat. It is N. E. Code standard and has all connections covered.
The base may be put up first and cap attached afterwards.
Standard package, 250.

No. 965. Combined cleat and rosette.....each, $ .26

ROSETTES, General Electric.



No. 60123,
No. 32578.



No. 60124,
No. 40496.

G. E. Ceiling Rosettes, 125 Volts. D. P. Link Fuses.

No. 60123. Cleat rosette, fusible.....each, $ .26
Standard package, 250.
Interchangeable caps.
No. 60124. Concealed rosette, fusible.....each, .26
Standard package, 250.
Interchangeable caps.
No. 60396. Moulding rosette, fusible.....each, .26
Standard package, 250.
Interchangeable caps.



No. 60396.
No. 40497.

G. E. Ceiling Rosettes, 250 Volts. D. P. Glass Tube Fuses.

Caps interchangeable with above.
No. 32578. Cleat rosette, fusible.....each, $ .30
Standard package, 250.
Interchangeable caps.
No. 40496. Concealed rosette, fusible.....each, .30
Standard package, 250.
Interchangeable cap.
No. 40497. Moulding rosette, fusible.....each, .30
Standard package, 250.
Interchangeable cap.
No. 40414. Interchangeable cap only.....each, .20
Standard package, 250.
When used on the G. E. 125-volt rosette bases above, makes them suitable for 250-volt circuits.
No. 32579. Two-ampere glass fuses for above, 250 volts.....each, .05
Standard package, 100.



No. 21497.



No. 34356.



No. A-33⅛.



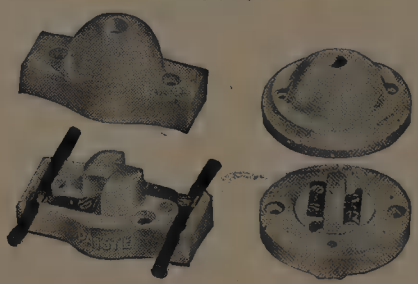
No. A-33½.



No. C-33⅛.



No. 435.



No. 433. No. 441.



No. 70. No. 170.

ROSETTES, General Electric (Continued).

G. E. Ceiling Rosettes, Fuseless.

No. 21497. One piece (oblong) cleat rosette, 250 volts.....each, $ .11
Standard package, 500.

No. 60474. One piece (round) cleat rosette, 125 volts.....each, .16
Standard package, 500.

No. 34356. Fuseless rosette for moulding work, 250 volts.....each, .20
Standard package, 250.

ROSETTES, Norbitt.

Norbitt Rosettes.

No. A-33½. Fuseless moulding cord rosette, per 100, $18.00

No. A-33⅛. Fuseless moulding fixture rosette, per 100, 22.00

No. C-33⅛. Fuseless conduit fixture rosette, per 100, 28.00

ROSETTES, Paiste.

Paiste Fielding Rosettes.

No. 435. Two-wire moulding rosette, for drop cord.....each, $ .20
Standard package, 250.
Package weight, 100 lbs.

No. 436. Two-wire moulding rosette, for fixture work.....each, .30
Standard package, 100.
Package weight, 52 lbs.
Bushing, ⅛-inch brass pipe thread.

No. 437. Three-wire moulding rosette, for drop cord.....each, .25
Standard package, 250.
Package weight, 140 lbs.

No. 438. Three-wire moulding rosette, for fixture work.....each, .35
Standard package, 100.
Package weight, 70 lbs.
Bushing, ⅛-inch brass pipe thread.

No. 433. Cleat rosette, for drop cord.....each, .20
Standard package, 250.
Package weight, 170 lbs.

No. 434. Cleat rosette, for fixture work....each, .30
Standard package, 100.
Package weight, 75 lbs.
Bushing, ⅛-inch brass pipe thread.

No. 441. Concealed rosette, for drop cord..each, .20
Standard package, 250.
Package weight, 182 lbs.

P. & S. Ceiling Buttons.

No. 70. Porcelain ceiling button.....per 100, $4.20
Standard package, 500.
Shipping weight, per 1,000, 160 lbs.
Packed 10 in a paper box.

No. 170. Porcelain ceiling button.....per 100, 5.80
Standard package, 500.
Shipping weight, per 1,000, 264 lbs.
Packed 50 in a paper box.

RUBBER Bushings (see B).

RUBBER Gloves (see G).

RUBBER, Hard.

Hard Rubber in Sheets.

Polishing surfaces, edges, etc., or cutting to special sizes and shapes at additional charge.

Standard size of sheet, 20 x 48 inches.

Stubb's Gauge.	Thickness in Inches.	Weight per Sheet.	Price per Lb.
26		11 oz.	$3.50
25		12 ,,	3.50
24		14 ,,	3.50
23		1 lb.	2.20
22		1⅛ ,,	2.20
21	1/32	1⅜ ,,	2.20
20		1½ ,,	2.20
19		1⅝ ,,	2.20
18		2 ,,	2.00
17		2¼ ,,	2.00
16	1/16	2½ ,,	1.60
15		2⅝ ,,	1.60
14		3¼ ,,	1.60
13		3¾ ,,	1.60
12	1/10	4¼ ,,	1.60
11		4¾ ,,	1.60
	1/8	5 ,,	1.60
10		5¼ ,,	1.60
9	5/32	5¾ ,,	1.60
8		6¾ lb.	$1.60
7		7½ ,,	1.60
	3/16	8 ,,	1.60
	¼	10½ ,,	1.60
	5/16	12¾ ,,	1.60
	⅜	16 ,,	1.60
	7/16	18½ ,,	1.60
	½	21 ,,	1.60
	9/16	23 ,,	1.60
	⅝	26 ,,	1.60
	¾	30 ,,	1.60
	⅞	35 ,,	1.60
	1	40 ,,	1.60
	1¼	50 ,,	1.60
	1⅜	55 ,,	1.60
	1½	60 ,,	1.60
	1⅝	65 ,,	1.60
	1¾	70 ,,	1.60

Hard Rubber Rods.

Polishing extra. Standard length, 24 inches.

Diam. Inches.	Weight per Rod.	Price per Lb.
3/32	144 to 1 lb.	Special
⅛	78 ,, 1 ,,	,,
5/32	46 ,, 1 ,,	,,
3/16	34 ,, 1 ,,	,,
7/32	27 ,, 1 ,,	,,
¼	18 ,, 1 ,,	$1.50
5/16	13 ,, 1 ,,	1.50
⅜	8 ,, 1 ,,	1.50
7/16	7 ,, 1 ,,	1.50
½	5 ,, 1 ,,	1.50
9/16	4 ,, 1 ,,	1.50
⅝	3 ,, 1 ,,	1.50
11/16	1 rod, 6 oz.	1.50
¾	1 ,, 7 ,,	1.50
13/16	1 ,, 8½ ,,	1.50
⅞	1 ,, 9½ ,,	1.50
15/16	1 rod, 11½ oz.	$1.50
1	1 ,, 13 ,,	1.50
1 1/16	1 ,, 14½ ,,	1.50
1⅛	1 ,, 1 lb.	1.50
1 3/16	1 ,, 1 lb., 2½ oz.,	1.50
1¼	1 ,, 1 ,, 4½ ,,	1.50
1 5/16	1 ,, 1 ,, 7 ,,	1.50
1⅜	1 ,, 1 ,, 9 ,,	1.50
1 7/16	1 ,, 1 ,, 10½ ,,	1.50
1½	1 ,, 1 ,, 13½ ,,	1.50
1 9/16	1 ,, 1 ,, 15½ ,,	1.50
1⅝	1 ,, 2 ,, 4 ,,	1.50
1¾	1 ,, 2 ,, 7½ ,,	1.50
2	1 ,, 3 ,, 3 ,,	1.50
2¼	1 ,, 4 ,, 2 ,,	1.50
2½	1 ,, 5 ,, 2 ,,	1.50

Hard Rubber Tubing.

In lengths of 24 inches. Polishing extra.

Diameter. Outside.	Inside.	Weight per Rod.	Price per Lb.
⅛	1/16	103 to 1 lb.	Special
3/16	3/32	47 ,, 1 ,,	,,
3/16	1/16	40 ,, 1 ,,	,,
¼	1/16	22 ,, 1 ,,	,,
¼	3/32	23 ,, 1 ,,	$1.50
¼	⅛	27 ,, 1 ,,	1.50
5/16	1/16	14 ,, 1 ,,	1.50
5/16	⅛	16 ,, 1 ,,	1.50
5/16	3/16	20 ,, 1 ,,	1.50
⅜	1/16	9 ,, 1 ,,	1.50
⅜	⅛	9 ,, 1 ,,	1.50
⅜	¼	15 ,, 1 ,,	1.50
7/16	⅛	8 ,, 1 ,,	1.50
½	3/16	6 to 1 lb.	$1.50
½	5/16	8 ,, 1 ,,	1.50
½	¼	7 ,, 1 ,,	1.50
⅝	⅜	5 ,, 1 ,,	1.50
⅝	¼	4 ,, 1 ,,	1.50
⅝	3/16	1– 4½ oz.	1.50
¾	½	1– 4½ ,,	1.50
¾	⅜	1– 5½ ,,	1.50
¾	½	1– 4 ,,	1.50
1	½	1–10½ ,,	1.50
1	¾	1– 6 ,,	1.50
1¼	¾	1–13 ,,	1.50
1¼	1	1– 7½ ,,	1.50

RUBBER Hooks (see H).

RUBBER, Soft.

Soft Rubber Tubing.

White rubber tubing in lengths as listed.

Inside Diam.	Outside Diam.	Length of Piece.	Per Piece.
$\frac{1}{32}$	$\frac{3}{32}$	12 ft.	$ .70
$\frac{1}{16}$	$\frac{1}{8}$	12 ,,	.70
$\frac{3}{32}$	$\frac{1}{8}$	12 ,,	.50
$\frac{1}{8}$	$\frac{3}{16}$	12 ,,	.50
		Weight of Piece.	Per Lb.
$\frac{3}{16}$	$\frac{5}{16}$	50 ft. ($1\frac{15}{16}$ lbs. approx.)	$1.20
$\frac{1}{4}$	$\frac{3}{8}$	50 ,, ($3\frac{1}{4}$,, ,,)	1.20
$\frac{5}{16}$	$\frac{7}{16}$	50 ,, ($3\frac{1}{2}$,, ,,)	1.20
$\frac{3}{8}$	$\frac{1}{2}$	50 ,, ($4\frac{1}{2}$,, ,,)	1 20
$\frac{1}{2}$	$\frac{5}{8}$	50 ,, ($5\frac{3}{4}$,, ,,)	1.20

Switch Point Rubber.

Soft rubber in strips to cut up for switch point of track.

No. S-2010 Switch point rubber.....per lb., $ .50

RUBBER Tape (see T).

RUBEROID Cloth (see C).

SAFETY Belt (see B).

SAFETY Hooks (see Irons, guard).

SAL Ammoniac.



Sal Ammoniac.

Sal Ammoniac.

Commercially pure sal ammoniac in granular form free from moisture, put up in packages or supplied in bulk.

No. S-457. 4-oz. pkgs. of sal ammoniac.....per pkg., $ .08
,, S-2011. Sal ammoniac in bulk.....per lb., .20

SALTS (see Paste and Sticks, soldering).



S. H. Soldering Salts.

Put up in half-pound and pound bottles in convenient form for use.

No. S-2012. $\frac{1}{2}$-pound bottles.....each, $ .50
,, S-2013. 1 ,, ,, ...per lb., .80

Yager's Soldering Salts.

No. S-2014. $\frac{1}{2}$-pound bottles.....each, $ .60
,, S-2015. 1 ,, ,, ...per lb., .90
,, S-2016. 5 ,, ,, ... ,, .80

SAMSON Battery (see Batteries, wet).

SAND Boxes (see Boxes).

SAND Pails. (see P).

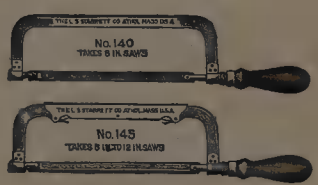
SAND Scoops (see Scoops).

SAND Screens (see Screens).

SAUCE Pans (see Pans).

SAUTÉ Pans (see Pans).

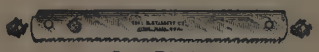
SAWS, Hack.



Starrett Patent Hack Saw Frames.

Spring plungers overlap the ends of the saw, automatically holding it to its home. By slightly pushing them back the saw may be *instantly* removed, thus furnishing the most convenient way of attaching or detaching the saw ever devised. An improved nut within the handle, turning with it, gives the desired tension to the saw, which may be quickly and conveniently set at any required angle. The adjustable or extension back frames have improved spring pawls which securely hold the frames to receive saws of various lengths. The frames are neither too light nor too heavy, are finely finished and nickel plated. Cocobolo handles.

No. 140. With one blade, takes 8-in. saws.....each, $ .90
,, 145. ,, ,, ,, ,, 8- to 12-in. saws, ,, 1.25



Saw Blade.

Saw Blades, No. 103.

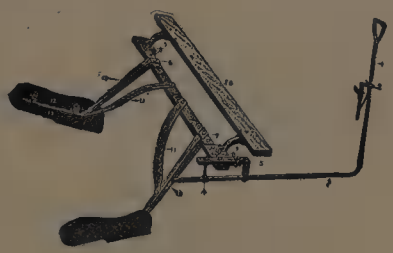
8-inch hack saw blades.....per doz., $ .65
9 ,, ,, ,, ,, ... ,, .70
10 ,, ,, ,, ,, ... ,, .85
11 ,, ,, ,, ,, ... ,, .95
12 ,, ,, ,, ,, ... ,, 1.05



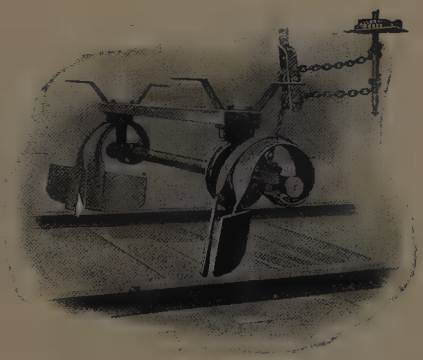
No. 96. Scissors.



No. 300.



Reliance Track Scraper.



Root No. 2 Special Spring Scraper.

SCISSORS.

Electricians' Pocket Scissors.

Steel-laid electricians' snips for cutting and stripping wire. Length, 5¾ inches.

No. 96. Nickeled scissors.....each, $1.00

SCOOPS (see Shovels).

Galvanized Sand Scoops.

A good serviceable scoop, with iron riveted handle.

No. 030. 7¾-inch scoop.....per doz., $5.00

,, 050. 11 ,, ,, ... ,, 7.50

Extra heavy scoops designed especially for street railway use. Made of heavy steel thoroughly galvanized, with a wood handle and malleable iron socket, strongly riveted.

No. 300. 7¾-inch extra heavy scoop...per doz., $5.84

SCOOP Shades (see Shades).

SCRAPERS.

Reliance Track Cleaner.

A positive scraper. Keeps snow, mud, and ice from rails at all times. Light or heavy pressure. In ordering, give kind of car, double or single trucks, distance from front wheel to front end of platform; distance from front of trucks or pilot to front (centre) of platform; height of lower edge of platform sills from track; handle wanted on right or left, how far from centre of platform; gauge of track; state if pavement is higher than rail outside.

No. S-2025. Per set for two ends of car.....$40.00

Root Railway Spring Scraper.

Easy to install; meets all conditions of city or interurban lines; cleans rail and groove even if 2 inches below pavement level, and operates whether snow is wet, dry, or packed.

No. 1 and No. 1 Special Scrapers.

Designed for low cars; either style will fasten to hangers 10½ inches above rails. The hanger board installs to sills or platform knees with 8-inch hangers from 17 to 20 inches above the rails, and with 12-inch hangers 2 inches higher.

No. 1 scraper fastens in the rear of hangers in all cases. Size of springs, 3½ x ¼. Size of blades, 8 x 24 x $\frac{3}{16}$ in.

The Special is same except heavier springs.

No. 1. Scraper.....per car end, $36.00

,, 1. Special scraper..... ,, 40.00

No. 2 and No. 2 Special Scrapers.

Designed for high speed and heavy work. Requires space 19 inches high or over. The No. 2 Special is extra strong throughout; springs, 4½ inches wide of No. 3–90 carbon spring steel. Blades, 24 x 8 inches, of No. 3 spring steel.

No. 2. Scraper..... $36.00

,, 2. Special scraper..... 40.00

No. 3 Scraper.

Designed for clearing snow from the middle of track, in connection with regular track scraper. Installed as a fixture and does not need to be operated.

No. 3. Fan scraper..... $36.00

No. 4 Scraper.

Designed to be connected to the trucks instead of body of car, otherwise same as No. 1 and No. 2.

No. 4. Truck scraper..... $40.00

No. 5 Scraper.

Made up with either No. 1 or No. 2 Special springs and requires same space between rail and sills to install. Designed to clean all the snow from between the rails and 9 inches outside. Raises and lowers same as a single scraper.

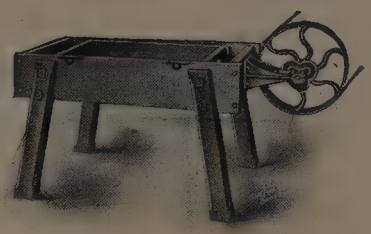
No. 5. Kalamazoo scraper..... $70.00



Sand Screen.



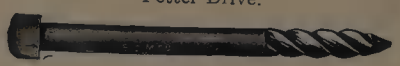
Steam or Air Style.



Belt or Hand Style.



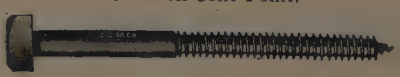
Fetter Drive.



Spiral Thread.



Common Cone Point.



Gimlet Point.

SCREENS.

Sand Screen No. S-2026.

Common sand screen for hand work.

Any size of mesh desired.....each, $8.00

Battle Creek Sand Sifter.

This machine is operated by a powerful little engine, operated by steam or air, and can be regulated to run fast or slow, as desired, by simply adjusting the throttle valve, and after starting will run continuously without further attention. Also made to operate by belt or hand power.

The screen or screen box can be instantly removed for cleaning without disconnecting any of the parts.

It is plain and simple, with nothing complicated in the mechanism to get out of order.

		Net, Each.
Steam or Air Power.		
No. S-2027.	Size of screen, 18 x 30 in.....	$55.00
,, S-2028.	,, ,, ,, 18 x 36 ,, ...	57.50
,, S-2029.	,, ,, ,, 18 x 42 ,, ...	60.00
Belt or Hand Power.		Net, Each.
No. S-2030.	Size of screen, 18 x 30 in.....	$30.00
,, S-2031.	,, ,, ,, 18 x 36 ,, ...	35.00
,, S-2032.	,, ,, ,, 18 x 42 ,, ...	37.50
Extra Riddles.		Net, Each.
No. S-2033.	Size of screen, 18 x 30 in.....	$1.25
,, S-2034.	,, ,, ,, 18 x 36 ,, ...	2.00
,, S-2035.	,, ,, ,, 18 x 42 ,, ...	2.50

Size of mesh, $\frac{1}{8}$ in. to $\frac{1}{2}$ in.

SCREWS, see following headings:

Screws, Lag.
,, Machine.
,, Wood.

SCREWS, Lag.

Lag Screws.

Common cone-pointed lags are ordinarily sent on orders unless other styles are specified.

Price per hundred.

Length Inches.	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$ & $\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1
$1\frac{1}{2}$	$2.25	$2.70	$3.15	$3.75				
2	2.45	2.96	3.47	4.11	$5.00			
$2\frac{1}{2}$	2.65	3.22	3.79	4.47	5.50	$7.90		
3	2.85	3.48	4.11	4.83	6.00	8.60	$12.50	
$3\frac{1}{2}$	3.05	3.74	4.43	5.19	6.50	9.30	13.50	$18.20
4	3.25	4.00	4.75	5.55	7.00	10.00	14.50	19.50
$4\frac{1}{2}$	3.45	4.26	5.07	5.91	7.50	10.70	15.50	20.80
5	3.65	4.52	5.39	6.27	8.00	11.40	16.50	22.10
$5\frac{1}{2}$	3.85	4.78	5.71	6.63	8.50	12.10	17.50	23.40
6	4.05	5.04	6.03	6.99	9.00	12.80	18.50	24.70
$6\frac{1}{2}$	.....		6.35	7.35	9.50	13.50	19.50	26.00
7	.....		6.67	7.71	10.00	14.20	20.50	27.30
$7\frac{1}{2}$	.....		6.99	8.07	10.50	14.90	21.50	28.60
8	.....		7.31	8.43	11.00	15.60	22.50	29.90
9	.....		7.95	9.15	12.00	17.00	24.50	32.50
10	.....			9.87	13.00	18.40	26.50	35.10
11	.....			10.59	14.00	19.80	28.50	37.70
12	.....			11.31	15.00	21.20	30.50	40.30

Weight of Lag Screws.

This table gives the approximate weight per 100 of the sizes most commonly used.

Length. Sizes.	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{3}{4}$
3 inch	10.6	14.6	19	29.2	32.9	48.3
$3\frac{1}{2}$,,	12	16.6	21.5	32.5	36.9	53.8
4 ,,	13.5	18.8	24	35.9	41	59.6
$4\frac{1}{2}$,,	15	20.7	26.5	39.3	44.9	65.5
5 ,,	16.5	22.8	29	42.7	48.8	71.5
$5\frac{1}{2}$,,	18	24.9	31.5	46.1	52.7	77.5
6 ,,	19.5	27	34	49.5	56.6	83.5
$6\frac{1}{2}$,,	.....	29	36.5	53	60.6	89.5
7 ,,	.....	31.1	39	56.3	64.5	95.5
$7\frac{1}{2}$,,	.....	33.2	41.5	59.7	68.5	101.6
8 ,,	.....	35.2	44	63.1	72.5	107.6
9 ,,	.....		49	69.9	80.5	119.8
10 ,,	.....		54	76.7	88.5	131

SCREWS, Machine.

Iron Machine Screws.

Price per gross, January 1, 1898.

Thd.	48,56	48	32, 36		30, 32	30	30, 32	24, 30		20	18, 20	16, 18				14, 16
to In.	64	56	40		36	32	36	32		24	24	20		16	18	18
No.	2	3	4	5	6	7	8	9	10	12	14	16	18	20	22	24
In.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
3/16	25	25	25	29	29	35	35	43	43							
1/4	25	25	25	29	29	35	35	43	43	55	68					
5/16	27	27	27	31	31	38	38	46	46	59	74	95				
3/8	27	27	27	31	31	38	38	46	46	59	74	95	105	120	140	165
7/16	29	29	29	33	33	41	41	49	49	59	74	95	110	125	145	170
1/2	29	29	29	33	33	41	41	49	49	59	74	95	110	125	145	170
9/16	33	33	33	36	36	46	46	54	54	66	81	100	115	135	165	190
5/8	33	33	33	36	36	46	46	54	54	66	81	100	115	135	165	190
3/4	37	37	37	42	42	52	52	63	63	74	88	110	130	155	175	200
7/8		48	48	48	48	60	60	72	72	85	100	120	140	165	190	220
1			55	55	55	70	70	85	85	97	115	135	155	180	210	255
1 1/8			75	75	75	85	85	105	105	125	145	165	185	210	250	300
1 1/4			75	75	75	85	85	105	105	125	145	165	185	210	250	300
1 3/8			100	100	100	115	115	135	135	160	180	200	220	250	300	360
1 1/2			100	100	100	115	115	135	135	160	180	200	220	250	300	360
1 3/4					125	135	135	170	170	180	205	240	255	290	345	410
2					150	165	165	200	200	210	230	275	290	335	395	465
2 1/4								200	230	230	250	275	310	325	370	435	500
2 1/2								235	275	275	300	325	345	365	415	490	575
2 3/4								275	325	325	340	365	385	415	475	555	645
3								325	375	375	390	425	465	515	575	650	745
3 1/4										480	500	525	600	650	700	790	880
3 1/2										550	575	605	680	750	825	900	1010
3 3/4											640	675	755	840	925	1075	1255
4											700	750	825	960	1025	1150	1350
4 1/4											775	825	920	1060	1175	1275	1475
4 1/2												900	1000	1160	1275	1400	1600
5												1025	1160	1325	1500	1700	2000
6												1600	1800	2000	2250	2500	



Brass Machine Screws.

Price per gross, January 1, 1898.

Thd.	48, 56	48	32	36	30, 32	30	30, 32	24, 30		20	18, 20	16	18		
to In.	64	56	40		36	32	36	32		24	24	20		16	18
No.	2	3	4	5	6	7	8	9	10	12	14	16	18	20	22
In.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
3/16	32	32	32	40	40	58	58	86	86						
1/4	32	32	32	40	40	58	58	86	86	90	115	155			
5/16	35	35	35	43	43	62	62	86	86	100	155	200			
3/8	35	35	35	43	43	62	62	86	86	100	155	200	255	300	360
7/16	39	39	39	48	48	68	68	95	95	115	170	210	300	360	460
1/2	39	39	39	48	48	68	68	95	95	115	170	210	300	360	460
9/16	48	48	48	57	57	77	77	105	105	130	190	235	325	390	490
5/8	48	48	48	57	57	77	77	105	105	130	190	235	325	390	490
3/4	60	60	60	70	70	90	90	115	115	150	210	260	350	430	540
7/8			72	80	80	105	105	135	135	180	230	290	375	470	595
1			80	90	90	120	120	155	155	210	260	320	400	520	670
1 1/8			100	120	120	150	150	190	190	255	310	370	450	600	775
1 1/4			100	120	120	150	150	190	190	255	310	370	450	600	775
1 3/8			150	170	190	210	210	250	250	300	360	430	500	680	890
1 1/2			150	170	190	210	210	250	250	300	360	430	500	680	890
1 3/4					250	270	270	310	310	350	415	500	550	750	985
2					330	350	370	400	400	440	490	575	650	825	1060
2 1/4							450	500	500	550	600	665	750	925	1180
2 1/2							600	650	650	700	750	800	900	1050	1250
2 3/4							650	700	750	800	900	1000	1100	1200	1400
3							750	800	850	900	1000	1100	1250	1400	1600
3 1/4									1250	1300	1400	1525	1750	1980	2100
3 1/2									1400	1500	1675	1800	1965	2215	2375
3 3/4															
4										2050	2145	2390	2670	2850	3000
4 1/4															
4 1/2											2790	3040	3300	3500	3750
5											3450	3610	3875	4175	4475
6												4720	5150	5525	5950

SCREWS, Wood.

Iron Wood Screws.

Revised List Prices, July 22, 1903.

Prices per gross.

No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
In.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
¼	72	72	72	72	72														
⅜	72	72	72	72	72	75	78	82	88	94									
½		.72	72	72	75	78	80	84	90	96	105	110	120						
⅝		.72	72	72	75	78	82	86	92	98	107	112	120	125	130				
¾			.72	75	78	82	85	90	95	100	110	115	125	135	150	165	180		
⅞			.74	78	82	85	90	94	100	105	115	125	135	145	155	175	200		
1				.80	84	87	92	98	105	110	120	130	140	160	170	200	250	270	280
1¼				.88	92	98	105	110	115	120	130	140	155	170	190	215	250	275	330
1½				.98	105	110	115	120	130	135	140	150	165	180	200	235	280	320	380
1¾							130	135	145	150	155	160	170	180	200	225	260	290	350	400
2							145	150	155	160	165	175	185	200	220	245	275	310	370	420
2¼							155	160	165	175	185	195	205	220	235	265	310	350	385	455
2½							190	200	210	220	230	240	250	260	270	290	330	365	420	470
2¾								240	260	270	280	290	300	310	320	330	360	390	450	500
3								295	300	305	310	315	320	330	340	350	380	420	480	550
3½										390	400	410	420	430	440	450	475	495	540	615
4										490	510	520	530	540	560	590	620	650	700	760
4½														700	720	760	785	815	860	915
5														810	830	860	910	970	1010	1100
6														1000	1030	1100	1160	1240	1300	1450



Brass and Bronze Metal Wood Screws.

Revised List Prices, July 22, 1903.

Prices per gross.

No.	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
In.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
¼	84	84	88	92	97	104												
⅜	84	87	92	97	104	112	120	135	150									
½		.92	96	102	108	120	130	145	165	190	215							
⅝		.96	100	108	115	130	140	160	185	210	240	265	300	335	370	410	455	
¾			112	118	125	140	155	175	200	230	265	300	335	370	410	455	505	
⅞			140	150	155	160	165	190	220	250	290	335	370	410	455	505	560	
1				165	170	175	180	210	245	280	315	365	410	455	505	560	665	
1¼				210	220	225	235	245	285	320	350	410	465	535	585	655	720	785
1½					.295	305	310	320	330	365	425	465	535	595	665	760	835	915
1¾							395	400	410	420	470	535	605	670	735	865	950	1045
2							515	520	525	530	540	615	685	755	845	975	1070	1170
2¼									685	695	705	725	790	880	980	1075	1190	1300
2½										940	950	960	970	985	1075	1185	1300	1430
2¾										1150	1165	1180	1195	1210	1225	1300	1420	1565
3											1370	1385	1400	1410	1430	1460	1540	1680
3½											1585	1600	1615	1630	1645	1660	1770	1940
4													1860	1880	1900	1925	2035	2230
4½															2260	2280	2340	2575
5																	2690	2960
6																	3100	3405

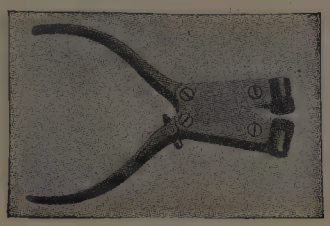
SCREW Driver (see D).

SCREW Gauge (see G).

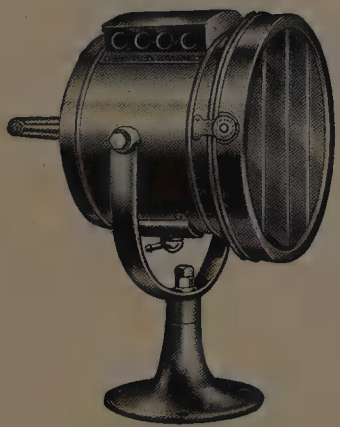
SEALING Wax Pots (see P).



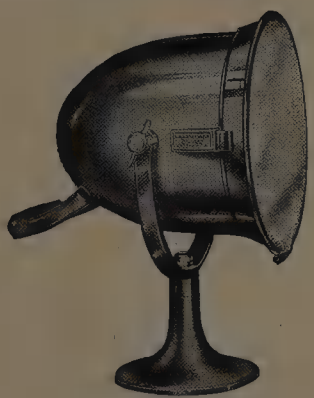
Meter Seals.



Sealing Tool.



Incandescent Searchlight.



"Duro" Searchlight with Launch Bracket.



Pole Seat.

SEALS.

Meter Seals.

These lead seals are for use in sealing watt meters to prevent unauthorized persons from tampering with them. The die of the sealing tool may be engraved with the initials of the owner for further protection.

No. 56122. Lead seal with wire.....per 1,000, $5.00
,, 5493. Pocket meter sealing tool.....each, 4.00
With owner's initials engraved..... ,, 5.25
Engraved G. E..... ,, 4.50

SEARCHLIGHT.

Gray and Davis Incandescent Electric Searchlight.

The best light for boat or automobile, as wind has no effect upon it. Can be instantly lighted or extinguished by the turn of a switch. May be operated from storage battery or magneto, as it takes but a small amount of current.

Regularly furnished with a 6-volt miniature incandescent lamp, but any voltage will be furnished to order. Produces a strong, penetrating light. So constructed that burner may be adjusted to give either long distance or "pencil," or spreading or "fan" ray as desired. Unexcelled in design, finish, and workmanship. Made in three sizes as follows:

	Diam. Flange.	Extreme Length.	Extreme Height.	Price, Each.
Style 6 (6 inch)	$7\frac{3}{4}$ in.	$7\frac{3}{4}$ in.	$9\frac{1}{4}$ in.	$20.00
,, 7 (7 ,,)	$8\frac{7}{8}$,,	$8\frac{5}{8}$,,	$10\frac{3}{8}$,,	22.50
,, 8 (8 ,,)	$9\frac{3}{4}$,,	$9\frac{7}{8}$,,	$11\frac{1}{2}$,,	25.00

NOTE.—We are prepared to furnish prices on *arc* searchlights and projectors of all standard makes, upon receipt of full information.

"Duro" Electric Searchlights.

No. 19. "Baby Search." Suitable for small runabouts. Also used with great success on small launches for picking landings, buoys, etc. Requires 8 or 12 volts. Draws 2 amperes. Complete with wire, attachment plug, etc., ready to attach; $5\frac{3}{4}$-inch opening, $9\frac{1}{2}$ inches high with launch bracket, $7\frac{1}{2}$ inches long over all.
With launch bracket or with auto dash bracket, each, $20.00
No. 20. Suitable for small touring cars, etc. Complete, ready for use. Requires 12 volts. Draws 2 amperes; $8\frac{1}{2}$-inch opening, $10\frac{1}{2}$ inches long over all, 10 inches high with launch bracket.
With launch bracket or with auto dash bracket, each, $25.00
No. 21. Suitable for touring cars, launches, etc. Standard size. Requires 12 volts. Draws 2 amperes. Complete, ready for use; $9\frac{1}{2}$-inch opening, $11\frac{1}{2}$ inches long over all, 12 inches high with launch bracket.
With launch bracket or with auto dash bracket, each, $35.00
No. 22. Used on largest touring cars. This is the most popular size for motor-boats. Requires 12 to 18 volts. Draws 2 amperes. Complete, ready for attachment; $11\frac{1}{2}$-inch opening, 13 inches long over all, 17 inches high with launch bracket.
With launch bracket or with auto dash bracket, each, $45.00
No. 23. "Mogul." Used on largest launches and boats. Complete, ready for use; 18, 40, or any voltage up to 110; 14-inch opening, 21 inches high, 15 inches long over all.
With launch bracket.....each, $55.00
Cabin brackets can be furnished for Nos. 23 and 24 at an extra cost of.....each, 10.00

SEAT, Pole.

Pole Seat.

Angle iron frame with heavy brace rods, strong and durable. Weight, 40 pounds.

No. S-2040. Pole seat.....each, $5.00

SECRET Nozzle (see Fixtures, fittings).

SECTION Insulator (see I).

SECTION Switch (see Switches, section).

SECURITY Insulator (see Insulators, porcelain).

SEGMENTS, Commutator (see Commutators).

SERIES, Lamp (see Lamps, incandescent, and Lamps, arc).

SETS, Testing (see Ohmmeter, Testers, Bridge, etc.).

SHADES, Car.

Prices of all styles on application.

SHADES and Reflectors, see following headings:

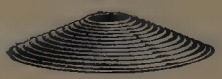
Aluminum Shades and Reflectors.
Brass Shades.
Celluloid Shades.
Glass Shades.
Linen and Silk Shades.
Paper Shades.
Porcelain Shades.
Reflectors.
Steel Shades.
Tin Shades.



No. 6584.



No. 6585.



No. 6583.



No. 6582.



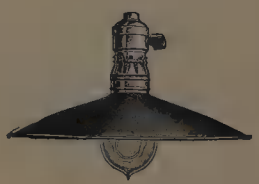
No. 6593.



No. 6594.



No. 6595.



No. 6596.



No. 6597.



No. 6598.



No. 6599.



No. 5430.



No. 6600.

Aluminum Shades and Reflectors, Dale.

Polished inside and japanned green outside.

Flat Shades No. 6584.	Frosted.	Polished.
10-inch for 2¼ holder, each,	$ .65	each, $ .85
12 ,, ,, 2¼ ,, ,,	.80	,, 1.00
14 ,, ,, 3¼ ,, ,,	1.00	,, 1.20
16 ,, ,, 3¼ ,, ,,	1.20	,, 1.45
18 ,, ,, 3¼ ,, ,,	1.40	,, 1.70
Cone Shades No. 6585.		
8-inch for 2¼ holder, each,	$ .70	each, $ .90
10 ,, ,, 2¼ ,, ,,	.80	,, 1.00
Convex Shades No. 6583.		
10-inch for 2¼ holder, each,	$ .65	each, $ .85
12 ,, ,, 2¼ ,, ,,	.80	,, 1.00
14 ,, ,, 3¼ ,, ,,	1.00	,, 1.20
16 ,, ,, 3¼ ,, ,,	1.20	,, 1.45
18 ,, ,, 3¼ ,, ,,	1.40	,, 1.70

Parabolic Shade No. 6582.

Green outside, polished inside. Fits lamp without shade holder.

	Frosted.	Polished.
For 16 or 32 c. p. lamps, doz.,	$5.40,	$7.20

Shades with Holders.

The holders on these shades snap over the raised bead on the standard socket and may be easily removed.

No.		Frosted.	Polished.
6593.	8-in. concave	$7.80	$9.60
6594.	7 ,, cone	5.40	7.20
	8 ,, ,,	7.80	9.60
6595.	7 ,, half cone	5.40	7.20
6596.	10-in. half concave	9.60	12.00
6597.	9½-in. concave	9.60	12.00
6598.	Parabolic for 16 or 32 c.p. lamps	5.40	7.20
6599.	Half shade, wire ring	4.50	6.00
6600.	,, ,, rim	5.50	7.00
6601.	,, ,, ,, cor'gated	5.50	7.00

Aluminum Shades and Reflectors, Hubbell.

Attached to the socket by means of a screw collar, insuring strength and rigidity. Can be easily removed. Also made in brass and tin, listed below.

Half Aluminum Reflector.

No.	Std. Pkg.	Pkg. Wt.	Per Doz.
5430	5 doz.	8 lbs.	$5.50

Flat Aluminum Shades.

			Each.
5434.	8-in. 1 doz.	3 lbs.	$ .85
5435.	10 ,, 1 ,,	4 ,,	.95
5436.	12 ,, 1 ,,	8 ,,	1.20
5458.	14 ,, 1 ,,	10 ,,	1.50
5459.	16 ,, 1 ,,	13 ,,	1.90

SHADES and Reflectors.



No. 5474.



No. 6601.



No. 5435.



No. 5479.



No. 5460.



Morse
Aluminum Reflector.



No. 330.



No. 91A.



No. 48A.



No. 93A.



No. 96A.

Aluminum Shades and Reflectors, Hubbell
(Continued).

Cone Aluminum Shades.

No.		Std. Pkg.	Pkg. Wt.	Per Doz.
5473.	8 in.	1 doz.	4 lbs.	$ .85
5474.	10 ,,	1 ,,	6 ,,	1.25
5475.	12 ,,	1 ,,	8 ,,	1.70

Parabola for 16 or 32 c. p. lamp.

				Per Doz.
5460.	6½ in., polished	5 doz.	15 lbs.	$9.00
5461.	6½ ,, frosted	5 ,,	15 ,,	8.25
5477.	5½ ,, polished	5 ,,	12 ,,	8.75
5478.	5½ ,, frosted	5 ,,	12 ,,	8.00

Special Shade.

5479.	7½ in., polished	5 doz.	18 lbs.	$10.00
5480.	7½ ,, frosted	5 ,,	18 ,,	9.25

Aluminum Shades and Reflectors, Morse.

Morse Ideal Aluminum Reflector.

For 8 and 16 candle-power lamps. Low cost, requires no shade holder; reflects over 150 per cent more light downward than the lamp does without it; allows the upper part of the room to be lighted.

Especially suitable for mills, factories and show windows. Can be used under tin, porcelain, or glass shades.

No. 1 Style, polished both sides, per doz. $1.00
,, 2 Style, polished underneath, satin finish on top side..... per doz., 1.50

Brass Shades.

No.		Std. Pkg.	Pkg. Wt.	Per Doz.
5532.	Hubbell half-brass reflector	5 doz.	8 lbs.	$9.00
	Same as aluminum shade, No. 5430 above, except material.			
330.	Brass pulpit hood, bronze outside, glossy white inside, for 3¼-inch holder	each,		2.00

Celluloid Shades.

For Portable Lamps.

Provided with reverse holder, fitting lamp tip. No obstruction to light below.

No. 48A. 7-inch. Yellow, pink, light green, blue, red, and white shades..... per doz., $3.40
No. 98A. 7-inch. Dark green outside, white inside..... per doz., 5.40

Regular Cone Shades.

These celluloid shades are green outside and white inside. They require no holder, as they snap on over socket beading.

No. 91A.	10-inch, flat cone	per doz.,		$8.50
,, 92A.	8 ,,	half ,,	... ,,	7.00
,, 93A.	10 ,,	,, ,,	... ,,	8.75
,, 94A.	12 ,,	,, ,,	... ,,	13.50
,, 95A.	8 ,,	deep ,,	... ,,	8.00
,, 96A.	10 ,,	,, ,,	... ,,	11.00

Translucent Colors.

These celluloid shades are of lighter material, same color all through. Regular colors: light green, red, pink, yellow, blue, white. Price includes holder.

No. 42A. 8-inch, half cone ... per doz., $4.50
,, 43A. 10 ,, ,, ,, ... ,, 5.00



No. 1670 Electric.



No. 1670 Gas.



No. 136 Gas.



No. 158 Gas.



No. 158 Electric.



No. 136 Electric.



No. 1345 Gas.



No. 1345 Electric.



No. 1659 Gas.



No. 133C Gas.



No. 133C Electric.



No. 1659 Electric.



No. 0306 Electric.



No. 0306 Gas.



No. 1799 Gas.



No. 230C Gas.



No. 230C Electric.



No. 1799 Electric.



No. 1418 Electric.



No. 1418 Gas.

SHADES and Reflectors (Continued).

Glass Shades.

In ordering shades be sure to state whether for electric or gas holders.

Gas and Electric Shades.

No.	In.	Holder.	Per Doz.
136.	2¼	electric, roughed inside	$3.00
	4	gas, ditto,	3.60
1670.	2¼	electric, satin etched	6.60
	4	gas, ditto,	7.00
158.	2¼	electric, roughed inside	3.70
	4	gas, ditto,	3.80
1345.	2¼	electric, satin etched	6.00
	4	gas, ditto,	6.90
1659.	2¼	electric, ditto	8.10
	4	gas, ditto,	10.00
133C.	2¼	electric, pressed glass	2.00
	4	gas, ditto,	2.30
0306.	2¼	electric, pressed top, roughed, bottom,	1.80
	4	gas, top roughed, pressed bottom,	2.00
1799.	2¼	electric, acid etched,	6.90
	4	gas, ditto,	7.50
230C.	2¼	electric, pressed glass	1.70
	4	gas, ditto,	2.00
1418.	2¼	electric, acid etched	3.40
	4	gas, ditto,	3.80



No. 1672 Gas.



No. 1672 Electric.



No. 09136 Gas.



No. 09506 Gas.



No. 09506 Electric.



No. 09136 Electric.



No. 1632 Gas.



No. 1632 Electric.



No. 1558 Gas.



No. 1771 Gas.



No. 1771 Electric.



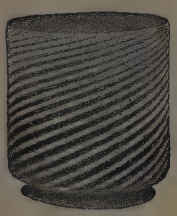
No. 1558 Electric.



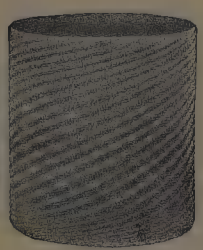
No. 117B.



No. 3765.



No. 1122.



No. 25.



No. 4920.



No. 248.



No. 1279.



No. 1279½.

SHADES and Reflectors.

Glass Shades
(Continued).

Gas and Electric Shades.

No.	In.	Holder.	Per Doz.
1672.	2¼	electric, satin etched,	$6.00
	4	gas, ditto,	7.00
09136.	2¼	electric, ditto..	6.90
	4	gas, ditto,	7.50
09506.	2¼	electric, roughed with cut star.	...12.00
	4	gas, ditto.	....13.50
1558.	2¼	electric, acid etched..	3.40
	4	gas, ditto,	3.80
1632.	2¼	electric, satin etched..	6.00
	4	gas, ditto,	7.00
1771.	2¼	electric, acid etched..	2.50
	4	gas, ditto,	3.00

Electric Only.

117B.	2¼	pressed glass.	...$2.10
4920.	2¼	flint, opalescent twist.	... 3.75

Electric Fancy.

3765.	2¼	electric, matte top, tinted bottom, red, blue, green or yellow,	$7.50
	4	gas, ditto,	9.00
248.	2¼	electric, matte bottom, tinted top, red, blue, green, yellow or pink.	....15.00

Gas Cylindrical.

No.	Per Doz.
1122. Opalescent twist cylinder, 5 in. holder, 6 in. diameter, 7 in. high.	....$7.00
25. Opalescent twist cylinder, 7 in. diameter, 7 in. high.	..12.00
1279. Silver etched gas cylinder, 5 in. holder, 6 in. diameter, 7 in. high.	.. 7.50
1279½. Same as No. 1279 except acid etched..	6.25



No. 2015.



No. E-97. Roughed inside.

SHADES and Reflectors.

Glass Shades. (Continued).

Balls. *Roughed Inside.*

	Diam.	Holder.	Per Doz.
No. E-97	6 in.	3¼ in.	$6.00
	7 ,,	3¼ ,,	7.50
	8 ,,	3¼ ,,	10.00
	8 ,,	4 ,,	10.00
	10 ,,	4 ,,	14.00
	10 ,,	5 ,,	14.00

Flint Opalescent Twist.

	Diam.	Holder.	
No. 2015.	6 in.	3¼ in.	$7.00
	7 ,,	3¼ ,,	8.25
	8 ,,	3¼ ,,	10.00

Satin Etched.

	Diam.	Holder.	
No. 1672B.	6 in.	3¼ in.	$12.00
	7 ,,	3¼ ,,	14.00
	8 ,,	3¼ ,,	16.50

Roughed Inside, with Cut Star.

	Diam.	Holder.	
No. 804.	6 in.	3¼ in.	$12.50
	7 ,,	3¼ ,,	16.25
	8 ,,	3¼ ,,	20.00

Roughed Inside, Hexagon, with Cut Star.

	Diam.	Holder.	
No. 09506B	6 in.	3¼ in.	$16.00
	8 ,,	3¼ ,,	25 00



No. 1672B.



No. 804.



No. 09506B.



No. 2021.



No. 2011.



No. 1672S.

Stalactites. *Roughed Inside.*

	Length.	Diam.	Holder.	
No. 2021	6 in.	4 in.	3¼ in.	$7.00
	8 ,,	4 ,,	3¼ ,,	9.00

Flint Opalescent Twist.

	Length.	Diam.	Holder.	
No. 2011.	6 in.	5½ in.	3¼ in.	$7.50
	8 ,,	5½ ,,	3¼ ,,	13.00

Satin Etched.

	Length.	Diam.	Holder.	
No. 1672S.	6 in.	4 in.	3¼ in.	$8.50
	8 ,,	4 ,,	3¼ ,,	10.00

Bowls. *Roughed Inside.*

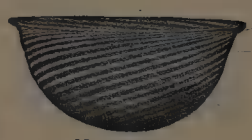
	Diam.	Depth.	
No. 2016.	10 in.	6 in.	$27.50
	12 ,,	6 ,,	30.00

Flint Opalescent Twist Bowl.

	Diam.	Depth.	
No. 2016F.	10 in.	6 in.	$26.00
	12 ,,	6 ,,	28.00

Roughed Inside, Cut Star.

	Diam.	Depth.	Each.
No. 855½	10 in.	6 in.	$8.00
	12 ,,	6 ,,	9.00



No. 2016F.



No. 855½.



No. 2016.

Dome Shades. *Roughed Inside.*

	Diam.	Holder.	Per Doz.
No. 2039.	10 in.	4 in.	$8.00
	12 ,,	4 ,,	12.00

Green Plated.

	Diam.	Holder.	
No. 555.	10 in.	2¼ in.	$12.00
	10 ,,	3¼ ,,	12.00
	10 ,,	4 ,,	12.00
No. 556.	12 ,,	3¼ ,,	20.00
	12 ,,	4 ,,	20.00

Royal Copper, Ruby.

	Diam.	Holder.	
No. 555R.	10 in.	4 in.	$25.00
,, 556R.	12 ,,	4 ,,	30.00

White Opal Dome.

	Diam.	Holder.	
No. E-63.	10 in.	2¼ or 3¼ in.	$3.75

Same shape as No. 555.



No. 2039.



No. 555.



No. 1451.



No. 1245.



No. 1248.



No. 812.



No. 858.



No. 862.



No. 1446.



No. 2271.



No. 2457.



No. 2454.



No. 1245H.



No. 1611.

SHADES and Reflectors.

Glass Shades (Continued).

Art Glass Shades.

In ordering, state number, diameter, color of glass, finish of metal, and whether fitted for lamp, gas, or electric portable, with cross bar in neck for chain fitting, or with standard 3¼, 4, 5, 6, or 7 crown holder. Brush brass furnished on metal unless otherwise ordered.

On all shades with fringe, price includes seed bead fringe of proportionate size and proper color. If any special length or color is wanted, it should be stated on order. Fitted with band holder or cross bar at same price.

				Colors.	Rubies.
No.	1451.	14 in.	diam., ea.,	$14.50	$15.25
,,	1245.	12 ,,	,, ... ,,	10.50	11.00
,,	1445.	14 ,,	,, ... ,,	12.00	12.75
,,	1645.	16 ,,	,, ... ,,	13.75	15.00
,,	1845.	18 ,,	,, ... ,,	16.25	18.00
,,	2045.	20 ,,	,, ... ,,	20.00	22.50
,,	1248.	12 ,,	,, ... ,,	10.50	11.00
,,	1448.	14 ,,	,, ... ,,	12.00	12.75
,,	1648.	16 ,,	,, ... ,,	13.75	15.00
,,	1848.	18 ,,	,, ... ,,	16.25	18.00
,,	2048.	20 ,,	,, ... ,,	20.00	22.50
,,	2248.	22 ,,	,, ... ,,	30.00	33.00
,,	2448.	24 ,,	,, ... ,,	37.50	41.00
,,	812.	8 ,,	,, ... ,,	7.50	8.00
,,	1012.	10 ,,	,, ... ,,	8.75	9.25
,,	1212.	12 ,,	,, ... ,,	10.60	11.25
,,	1412.	14 ,,	,, ... ,,	12.50	13.25
,,	1612.	16 ,,	,, ... ,,	15.00	16.25
,,	1812.	18 ,,	,, ... ,,	18.00	19.25
,,	2012.	20 ,,	,, ... ,,	22.50	25.00
,,	858.	8 ,,	,, ... ,,	7.50	8.00
,,	1058.	10 ,,	,, ... ,,	8.75	9.25
,,	1258.	12 ,,	,, ... ,,	10.60	11.25
,,	1458.	14 ,,	,, ... ,,	12.50	13.25
,,	1658.	16 ,,	,, ... ,,	15.00	16.25
,,	1858.	18 ,,	,, ... ,,	18.00	19.75
,,	2058.	20 ,,	,, ... ,,	22.50	25.00
,,	862.	8 ,,	,, ... ,,	7.50	8.00
,,	1062.	10 ,,	,, ... ,,	8.75	9.25
,,	1262.	12 ,,	,, ... ,,	10.60	11.25
,,	1462.	14 ,,	,, ... ,,	12.50	13.25
,,	1662.	16 ,,	,, ... ,,	15.00	16.25
,,	1862.	18 ,,	,, ... ,,	18.00	19.75
,,	2062.	20 ,,	,, ... ,,	22.50	25.00
,,	1446.	14 ,,	,, ... ,,	13.50	14.25
,,	2271.	22 ,,	,, ... ,,	19.00	21.00
,,	2457.	24 ,,	,, ... ,,	33.00	36.75
,,	2454.	24 ,,	,, ... ,,	50.00	54.00
,,	1245H.	12 ,,	,, ... ,,	10.50	11.00
,,	1445H.	14 ,,	,, ... ,,	12.00	12.75
,,	1645H.	16 ,,	,, ... ,,	13.75	15.00
,,	1845H.	18 ,,	,, ... ,,	16.25	18.00
,,	2045H.	20 ,,	,, ... ,,	20.00	22.50
,,	1611.	16 ,,	,, ... ,,	12.50	13.75
,,	2011.	20 ,,	,, ... ,,	18.00	20.50



No. 1656.



No. 1210.



No. 1265.



No. 814.



No. 837.



No. 894.



No. 1003.



No. 516.



No. 519.



No. 69.



No. 438.



No. 504.



No. 423.



No. 512R.



No. 512.



No. 6111.

SHADES and Reflectors.

Glass Shades (Continued).

Art No.	Glass Shades.		Colors.	Rubies.
	1656. 16-in. diam.	each,	$22.50	$23.75
,,	1856. 18 ,, ,,	,,	25.00	27.00
,,	2056. 20 ,, ,,	,,	30.00	33.00
,,	2256. 22 ,, ,,	,,	35.00	38.00
,,	2456. 24 ,, ,,	,,	40.00	44.00
,,	3056. 30 ,, ,,	,,	48.00	55.00
,,	1210. 12 ,, ,,	,,	24.00	25.00
,,	1410. 14 ,, ,,	,,	30.00	31.00
,,	1610. 16 ,, ,,	,,	36.00	38.00
,,	1810. 18 ,, ,,	,,	40.00	42.00
,,	2010. 20 ,, ,,	,,	50.00	53.00
,,	2410. 24 ,, ,,	,,	60.00	64.00
,,	1265. 12 ,, ,,	,,	10.60	11.25
,,	1465. 14 ,, ,,	,,	12.50	13.25
,,	1665. 16 ,, ,,	,,	15.00	16.50
,,	1865. 18 ,, ,,	,,	18.00	20.00
,,	2065. 20 ,, ,,	,,	22.50	25.00
,,	814. 8 ,, ,,	,,	3.00	3.50
,,	1014. 10 ,, ,,	,,	3.50	4.00
,,	1214. 12 ,, ,,	,,	4.00	4.50
,,	1414. 14 ,, ,,	,,	4.50	5.25
,,	1614. 16 ,, ,,	,,	5.60	6.85
,,	1814. 18 ,, ,,	,,	7.50	9.25
,,	2014. 20 ,, ,,	,,	10.00	12.50
,,	2214. 22 ,, ,,	,,	12.50	15.50
,,	2414. 24 ,, ,,	,,	15.00	19.00
,,	837. 8 ,, ,,	,,	3.00	3.50
,,	1037. 10 ,, ,,	,,	3.50	4.00
,,	1237. 12 ,, ,,	,,	4.00	4.50
,,	1437. 14 ,, ,,	,,	4.50	5.25
,,	1637. 16 ,, ,,	,,	5.60	6.85
,,	1837. 18 ,, ,,	,,	7.50	9.25
,,	2037. 20 ,, ,,	,,	10.00	12.50
,,	2237. 22 ,, ,,	,,	12.50	15.50
,,	2437. 24 ,, ,,	,,	15.00	19.00
,,	894. 8 ,, ,,	,,	3.00	3.50
,,	1094. 10 ,, ,,	,,	3.50	4.00
,,	1294. 12 ,, ,,	,,	4.00	4.50
,,	1494. 14 ,, ,,	,,	4.50	5.25
,,	1694. 16 ,, ,,	,,	5.60	6.85
,,	1894. 18 ,, ,,	,,	7.50	9.25
,,	2094. 20 ,, ,,	,,	10.00	12.50
,,	2294. 22 ,, ,,	,,	12.50	15.50
,,	2494. 24 ,, ,,	,,	15.00	19.00
,,	1003. 10 ,, ,,	,,	10.00	11.25
,,	512R. 5 ,, ,,	,,	2.75	3.50
,,	516. 5 ,, ,,	,,	3.50	4.00
,,	519. 5 ,, ,,	,,	6.50	7.50
,,	69.	,,	10.00	11.00
,,	438. 4-in.	per doz.,	22.50	27.00
,,	538. 5 ,, ... ,,	,,	25.50	30.00
,,	638. 6 ,, ... ,,	,,	30.00	37.50
,,	838. 8 ,, ... ,,	,,	37.50	48.00
,,	504. 5 ,, ... ,,	,,	22.50	27.00
,,	604. 6 ,, ... ,,	,,	30.00	37.50
,,	804. 8 ,, ... ,,	,,	45.00	55.50
,,	1004. 10 ,, ... ,,	,,	60.00	75.00
,,	423. 4 ,, ... ,,	,,	24.00	30.00
,,	523. 5 ,, ... ,,	,,	30.00	36.00
,,	623. 6 ,, ... ,,	,,	37.50	45.00
,,	823. 8 ,, ... ,,	,,	45.00	57.00
,,	512. 5 ,,* ..... ,,	,,	45.00	49.50
,,	612. 6 ,,* ..... ,,	,,	52.50	60.00
,,	812. 8 ,,* ..... ,,	,,	67.50	78.00
,,	6111. 6 ,, ... ,,	,,	67.50	75.00
,,	8111. 8 ,, ... ,,	,,	75.00	90.00
,,	10111. 10 ,, ... ,,	,,	97.50	120.00
,,	12111. 12 ,, ... ,,	,,	135.00	157.50

*Including fringe.



No. 8039.



No. 8023 B.



No. 8018.



No. 8041.



No. 8020.



No. 8031.



No. S-2050.



No. S-2053.



No. 8516.

SHADES and Reflectors.

Glass Shades (Continued).

Fancy Portable Shades.

	Per Doz.
No. 8039. 10-inch holder.	
Green plated, white lined	$19.80
,, ,, gold decoration No. 1	52.80
,, ,, ,, ,, ,, 2	59.40
Royal copper, white lined	35.20
,, ,, gold decoration No. 1	68.20
,, ,, ,, ,, ,, 2	75.00
,, ,, iced inside	45.00
O decoration, topaz ground, cathedral design	66.00
E decoration, crystal iced, lily design	53.00
H ,, ,, ,, autumn leaf design	60.00
S decoration, R. I. cathedral design	83.00
A ,, opal, with rose design	26.00
No. 8023. 10-inch holder.	
M decoration, R. I. conventional red flower design	44.00
B decoration, R. I. gold traced lily design	48.00
I decoration, R. I. cathedral design	42.00
C ,, crystal iced, green ground, new art design	56.00
D decoration, crystal iced, ruby ground, new art design	56.00
No. 8018. 10-inch, closed top.	
A decoration, crystal R. I.	12.00
F ,, ,, iced, rose design,	42.00
M ,, ,, ,, lily ,,	49.50
No. 8041. 10-inch, closed top.	
R decoration, R. I. ruby ground, gold traced scroll design	80.00
P decoration, opal, Dresden design	34.00
O ,, topaz ground, cathedral design	66.00
Royal copper, iced inside	42.00
No. 8020. 10-inch, closed top.	
Crystal R. I.	12.00
Green plated, white lined	14.00
No. 8031. 10-inch, ribbed.	
Green plated, white lined	12.00
Royal copper, ,, ,,	21.00
Canary, white lined	17.50
Golden age, white lined	12.75

Green Flash Shades.

Green outside, white inside.	Per Doz.
No. S-2050. 7-in. diam., 2¼ in. holder, deep cone	$5.00
,, S-2051. 10 ,, ,, 2¼ ,, ,, ,, ,,	9.00
,, S-2052. 10 ,, ,, 3¼ ,, ,, ,, ,,	11.00
,, S-2053. Half glass green flash, corrugated	6.00
,, S-2054. ,, ,, ,, ,, plain	6.00
,, 8516. ,, ,, ,, ,, elliptical	6.00

SHADES and Reflectors.

Glass Shades (Continued).



No. S-2060.

McCreary Style Shades.

				Per Doz.
No. S-2060.	7 in.,	silver	per doz.,	$13.00
,, S-2061.	7 ,,	gold	,,	13.00
,, S-2062.	7 ,,	colonial (white)	,,	13.00
,, S-2063.	7 ,,	empire (green)	,,	13.00
,, S-2064.	8 ,,	silver	,,	15 00
,, S-2065.	8 ,,	gold	,,	15.00
,, S-2066.	8 ,,	empire (green)	,,	15.00
,, S-2067.	8 ,,	colonial (white)	,,	15.00
,, S-2068.	9 ,,	silver	,,	22.00
,, S-2069.	9 ,,	empire, (green)	,,	22.00
,, S-2070.	9 ,,	colonial (white)	,,	22.00
,, S-2071.	12 ,,	silver	,,	42.00
,, S-2072.	15 ,,	mogul	,,	80.00

For 7 and 8 in., use 3¼-in. holders and 10, 16, or 25 candle-power lamp.

For 9 and 12 in., use 4-in. holders and 32 or 50 candle-power lamp.

For 15 in., use 6-in. holders and 100 candle-power lamp.

McCreary Shades (genuine).

Green glass outside, opal lined, with ground glass bottom.

No. S-2075. 8-in. diameter ..... per doz., $24.00

Holophane Shades (see Lamps, incandescent, and Clusters, arc).

The holophane shades give diffusion, redirection of the rays of light in useful directions, and small absorption. In general, they throw the light in three directions.

Class A globes throw light directly downwards and are used on chandeliers, over reading tables, dining-room tables, etc.

Class B globes throw a maximum light at an angle of 45 degrees and are used principally for general illumination.

Class C globes throw a maximum illumination at from 10 to 15 degrees below the horizontal, designed to light large areas, streets, etc.

Inasmuch as holophane globes give perfect diffusion, care should be taken not to use a smaller candle-power than that recommended, to avoid a dim appearance of globe.



No. 1211.

	Class.	Diam. Under Flange.	Diam. Over All.	Lamps Recommended.	Doz. in Bbl.	Pkg. Wt. Lbs.	List, Each.
Holophane Bowls.							
No. 811. Bowl,	A	7½	8	1–16 c. p.	1¾	95	$1.85
,, 911. ,,	A	8½	9	1–32 ,,	1¾	95	2.40
,, 1011. ,,	A	9½	10	1–32 ,,	1	90	3.00
,, 1211. ,,	A	11½	12	1–50 ,,	¼	60	5.00
,, 1411. ,,	A	13½	14	1–75 ,,	¼	65	10.00
,, 1611. ,,	A	15½	16	1–75 ,,	⅙	70	15.00



No. 1230.

Holophane Spheres.

These globes, for pendant use only, are made in two pieces, each of which is flanged. Should not be used for uprights.

	Class.	Diam. Under Flange.	Diam. Over All.	Lamps Recommended.	Doz. in Bbl.	Pkg. Wt. Lbs.	List, Each.
No. 1030. Sphere,	B	10	10⅜	1– 50 c. p.	½	90	$7.00
,, 1230. ,,	B	12	12½	1– 75 ,,	⅙	75	10.00
,, 1430. ,,	B	14	14½	1– 75 ,,	1/12	55	20.00
,, 1630. ,,	B	16	16½	1–100 ,,	1/12	70	30.00
,, 2030. ,,	B	20	20½	3– 50 ,,	1/12	100	100.00



No. 3154.

Holophane Globes.

For pendant use only; never used for uprights.

	Class.	Holder.	Diam.	Lamps Recommended.	Doz. in Bbl.	Pkg. Wt. Lbs.	List per Doz.
No. 3050. Globe,	B	3¼	5½	10–16 c. p.	3	90	$17.00
,, 3063. ,,	B	3¼	6	16–20 ,,	2½	90	22.00
,, 3064. ,,	B	4	6	16–32 ,,	2½	90	22.00
,, 3155. ,,	B	3¼	6½	16–20 ,,	2	100	27.00
,, 3154. ,,	B	4	6½	16–32 ,,	2	100	27.00
,, 3550. ,,	B	4	8	24–32 ,,	1	95	48.00
,, 3555. ,,	B	5	8	32–50 ,,	1	95	48.00
,, 3556. ,,	B	6	8	32–50 ,,	1	95	48.00



No. 3405.

SHADES and Reflectors.

Glass Shades (Continued).

Holophane Globes.

For upright use only. Should never be used as pendants.

	Class.	Holder.	Diam.	Lamps Recommended.	Doz. in Bbl.	Pkg. Wt.	List per Doz
No. 3405. Globe,	B	3¼	5½	From 10–16 c. p.	3	100	$17.00
,, 3105. ,,	B	3¼	6½	,, 16–20 ,,	2	100	27.00
,, 3145. ,,	B	4	6½	,, 16–32 ,,	2	100	27.00
,, 3500. ,,	B	4	8	,, 24–32 ,,	1	95	48.00
,, 3505. ,,	B	5	8	,, 32–50 ,,	1	95	48.00
,, 3506. ,,	B	6	8	,, 32–50 ,,	1	95	48.00



No. 9136.

Holophane Globes.

For pendant use only. Should never be used as uprights. Upper half consists of pagoda prisms, lower half of ground glass.

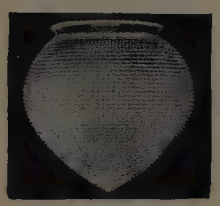
	Holder.	Diam.	Lamps Recommended.	Doz. in Bbl.	Pkg. Wt.	List per Doz.
No. 9136. Pagoda ball,	3¼	6	From 10–16 c. p.	2	75	$36.00
,, 9137 ,, ,,	3¼	7	,, 16–20 ,,	1½	75	48.00
,, 9148. ,, ,,	4	8	,, 16–32 ,,	1	75	72.00



No. 9136F.

Same as above, but with ground glass bottom cut with star pattern.

	Holder.	Diam.	Lamps Recommended.	Doz. in Bbl.	Pkg. Wt.	List per Doz.
No. 9136F. Pagoda ball,	3¼	6	From 10–16 c. p.	2	75	$72.00



No. 3383.

Holophane Stalactites.

For pendant use only. Should never be used as uprights, but can be used at an angle not greater than 45 degrees from the vertical.

	Class.	Holder.	Width.	Height.	Lamps Recommended.	Doz. in Bbl.	Pkg. Wt.	List per Doz.
No. 3383. Stalactite,	A	3¼	4¼	4½	4–10 c. p.	7	105	$10.00
,, 3353. ,,	A	3¼	4½	5	10–16 ,,	5½	105	12.00
,, 3358. ,,	B	3¼	4¾	5	10–16 ,,	5	100	12.00
,, 3363. ,,	A	3¼	5	5	16–20 ,,	5	100	14.00
,, 3350. ,,	A	3¼	6	6	16–20 ,,	2¾	95	22.00
,, 3354. ,,	A	4	6	6	16–32 ,,	2¾	95	22.00



No. 3150.

Use the following for pendants only:

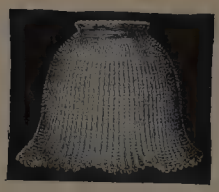
No. 3343. Stalactite,	B	3¼	3½	4¾	4–10 c. p.	9	110	$8.00
,, 3158 ,,	B	3¼	3½	5¼	8–16 ,,	7	100	9.00
,, 3150. ,,	B	3¼	4¼	6¼	10–16 ,,	5	110	13.00
,, 3250. ,,	B	4	5½	8½	24–32 ,,	2¼	95	24.00
,, 5000. ,,	C	4	7¼	10	32 ,,	1	80	48.00
,, 5005 ,,	C	5	7¼	10	32–50 ,,	1	80	48.00
,, 5006. ,,	C	6	7¼	10	32–50 ,,	1	80	48.00
,, 5008. ,,	C	8	8	10	32–50 ,,	1	80	48.00
,, 3173. ,,	C	3¼	3½	7	10–16 ,,	5	95	10.00
,, 3174. ,,	C	4	3½	7	10–16 ,,	5	95	10.00
,, 3293. ,,	C	3¼	4½	8¾	16–20 ,,	3½	100	17.00
,, 3294. ,,	C	4	4½	8¾	16–32 ,,	3½	100	17.00
,, 3295 ,,	C	5	4½	8¾	16–32 ,,	3½	100	17.00



No. 3293.



No. 2250.



No. 2450.



No. 245.



No. 1385.



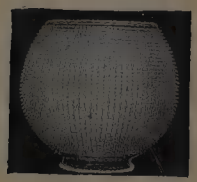
No. 2405.



No. 2805.



No. 2205.



No. 2451.



No. 2481.



No. 2811.



No. 2403.



No. 2711.



No. 1387.



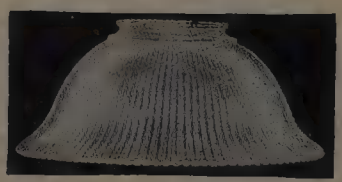
No. 1384.



No. 2400.



No. 2401.



No. 2333.



No. 7330.



No. 2621.



No. 2545.



No. 2623.



No. 2633.



No. 2664.



No. 2651.



No. 2673.



No. 2801.



No. 2905.



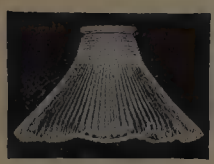
No. 4401.



No. 1386.



No. 2801.



No. 2631.



No. 2683.

SHADES and Reflectors.

Glass Shades (Continued).

Holophane Shades.

These shades are for pendant use only.

	Class.	Holder.	Width.	Hgt.	Lamps Recommended C. P.	Doz. in Bbl.	Pkg. Wt.	List per Doz.
No. 2250. Shade,	B	2½	4¾	4¾	10–16	8	110	$9.00
,, 2705. ,,	B	1⅝	4½	4¼	8–16	9	100	8.50
,, 2450. ,,	B	2¼	4¾	4¾	10–16	6	95	11.00
,, 245. ,,	special	2¼	5½	4	10–16	6	95	11.00

The following are for upright use only:

No. 1385. Shade,	A	2¼	6	4¼	8–16	7	100	$11.00
,, 2905. ,,	C	2¼	5	5	10–16	5	95	12.00
,, 2005. ,,	B	2¼	5	4	8–16	6½	110	10.00
,, 2405. ,,	B	2¼	5¾	4½	10–16	4½	100	11.00
,, 2805. ,,	B	2¼	5½	4½	10–16	5	95	11.00
,, 2205. ,,	B	2¼	4½	4½	8–16	8	110	9.00
,, 2451. Globe,	B	2¼	4¾	4½	8–16	5	105	11.00
,, 295. ,,	special	2¼	5⅜	5	10–22	5	95	12.00

The following are for flat gas flame:

No. 4401. Shade,	B	4	8	4	.....	3	85	$15.00

For Welsbach air hole burners use

	Class.	Diam. Inside of Neck	Diam. Outside of Neck.	Width.	Height.	Doz. in Bbl.	Pkg. Wt.	List per Doz.
No. 2481. Shade,	A	2 1/16	2⅜	6½	4½	4	85	$12.00
,, 2811. ,,	B	2 1/16	2⅜	6	4½	4	85	12.00
,, 2403. Globe,	B	2 1/16	2⅜	5	5	4	90	14.00
,, 2711. ,,	C	2 1/16	2⅜	6½	5	3½	90	13.50

For side rod or post burners:

	Class.	Holder.	Width.	Height.		Doz. in Bbl.	Pkg. Wt.	List per Doz.
No. 1386. Shade,	A	3¼	5⅞	3	.....	7	110	$8.00
,, 1387. ,,	B	3¼	5½	3	.....	7	100	8.00

For standard small gallery burner:

No. 1384. Shade,	A	1⅞	5½	4½	.....	6	90	$11.00
,, 2400. ,,	B	1⅞	5	4¾	.....	5	100	11.00
,, 2401. ,,	B	1⅞	6	4¾	.....	4½	95	11.00
,, 2801. ,,	B	1⅞	5½	4¾	.....	5	95	11.00

For inverted gas burners:

No. 2333. Shade,		3¼	9	4	.....	3	100	$16.00
,, 7330. ,,		3¼	7⅝	4¼	.....	3	100	16.00
,, 7331. ,,	crimped	3¼	9	3¾	.....	3	100	16.00

Holophane Pagoda Reflectors.

	Holder.	Width.	Height.	Lamps Recommended. C. P.	Doz. in Bbl.	Pkg. Wt.	List per Doz.
No. 2621. Pagoda,	1⅝	6	3¾	8–16	8	110	$8.50
,, 2631. ,,	1⅝	5½	3½	8–16	10	105	8.50
,, 2545. ,,	1⅝	4¼	2	4–10	6	30	5.50
,, 2623. ,,	2¼	6½	3½	8–16	8	110	10.00
,, 2633. ,,	2¼	6	3¾	8–16	8	110	10.00
,, 2662. ,,	2¼	6½	2¾	8–16	7	95	9.00
,, 2664. ,,	2¼	6¾	2¼	8–16	7	95	9.00
,, 2683. ,,	2¼	5	3½	8–16	8	85	9.00
,, 2651. ,,	2¼	9½	5	32–50	2	85	18.00
,, 2673. ,,	2¼	7½	4¼	16–32	4	100	12.00
,, 2301. ,,	2¼	7	3¼	8–16	6	95	8.00
,, 2570. ,,	2¼	9½	3¼	16–32	3	80	18.00



No. 7381.



No. 2522.



No. 190B.

No. 2596.



No. 2510.



No. 189C.



No. 192D



No. 195C.



No. 223



No. 184A.



No. 184B.



No. 185A.



No. 185B.



No. 185C.



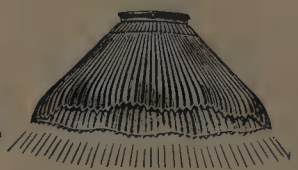
No. 186B.



No. 186C.



No. 187A.



No. 187C.



No. 196B.



No 197C.



No. 197A.



No. 191C.



No. 193C.



No. 192C.



No. 193D.

SHADES and Reflectors.



No. 188A.



No. 188B.



No. 188C.



No. 191B.



No. 190C.



No. 196C.

Glass Shades (Continued).

Holophane Pagodas.

No.	Holder.	Width.	Hgt.	Lamps Recommended. C. P.	Doz. in Bbl.	Pkg. Wt. Lb.	List per Doz.
2552.	Pagoda,	3¼	9¾	2½	16–32	3	95	$16.00
2562.	,,	4	12¾	3½	3–6 lps.	1	75	30.00
2522.	,,	4	16	4	,, ,,	½	75	60.00
9024.	,,	4	19	3¾	,, ,,	½	80	120.00
7381.	,,	2¼	6¾	4⅞	8–16	3	85	12.00
7391.	,,	2¼	7¼	5¾	16–32	3	95	16.00
2554.	,,	1⅝	4¼	4	4–16	10	100	9.50
2510.	,,	2¼	7	5	8–16	4	95	13.00
4908.	,,	2¼	8	4	8–16	4	95	14.00
4910.	,,	2¼	10	4¾	10–32	3	95	22.00
2596.	,,	1⅝	5¾	2¾	8–16	10	110	8.50
2599.	,,	2¼	7	3	10–16	6	95	10.00

Franklin Shades.

	Fitter.	Diam.	Hgt.	Doz. in Box.	Doz. in Bbl.	List per Doz.
No. 184A	1⅝	3⅝	2½	12	24	$3.50
,, 184B	1⅝	3¼	2⅜	12	24	3.50
,, 185A	1⅝	4¼	3½	6	12	4.00
,, 185B	1⅝	4¼	3⅜	6	12	4.00
,, 185C	1⅝	4¼	3½	6	12	4.00
,, 186B	1⅝	6	3¼	4	8	4.50
,, 186C	1⅝	6	3¼	4	8	4.50
,, 187A	2¼	7	3½	3	6	5.50
,, 187C	2¼	7	3¼		6	5.50
,, 188A	2¼	4¼	3⅞	6	10	5.00
,, 188B	2¼	4¼	3⅞	6	10	5.00
,, 188C	2¼	4⅞	4⅛	6	10	5.00
,, 189C	1⅝	7	3	4	8	5.50
,, 190B	2¼	9½	4¼		2½	15.00
,, 190C	2¼	10	4¼		2½	15.00
,, 191B	1⅝	4¾	3½	6	12	5.00
,, 191C	1⅝	5	3¼	6	12	5.00
,, 192D	2¼	5¾	1⅝	7	14	5.25
,, 192C	2¼	5¾	1⅝	7	14	5.25
,, 193D	2¼	7¼	2⅛	4	8	6.25
,, 193C	2¼	7¼	2⅜	4	8	6.25
,, 195C	2¼	5	2¼	6	12	4.50
,, 196B	2¼	6	3½	4	8	5.50
,, 196C	2¼	6	3½	3	6	5.50
,, 197A	1⅝	4⅝	3½	6	12	4.00
,, 197C*	1⅝	3½	3⅞	6	12	4.00
,, 223	3¼	6	6		2	4.38
,, 223	3¼	7	7		1½	5.63
,, 223	3¼	8	8		1	8.75

* Square.



Shade No. 108.



No. 431.



No. 430.



No. 711.



No. 713.



No. 1.
Flat Cone Shade.



No. 3 Half Cone Shade.



No. 6 Deep Cone Shade.



Plain Flat Shade.



Flat Fluted Shade.

SHADES and Reflectors (Continued).

Linen and Silk Shades.

These linen shades are 7 inches in diameter and 4 inches in depth, white lined, silk trimmed.

They can be furnished in the following colors. red, blue, dark green, light green, yellow, and pink.

		Per Doz.
No. 430.	Complete, with holder to fit top of lamp,	$8.00
,, 431.	Special holder only, for linen shades	3.00

The following linen shades are 8½ inches in diameter and are furnished without holder.

They can be furnished in the following colors: red, pink, white, nile green, yellow, blue, and lavender.

No. 711.	Linen shade only ..... per doz.,	$8.00
,, 713.	,, ,, ,, Dresden effect, ,,	9.00
	Special holder for same..... ,,	1.00

The following silk shades are suitable for the highest class of work. They are furnished with either silver or gold bead fringe only, silver being furnished unless otherwise ordered.

Standard colors: dark green, red, light green, pink, blue, or yellow.

Lower edge of shades are either plain or scalloped. If scalloped is wanted, put " S " after the number.

		Per Doz.
No. 108.	7-inch, deep cone, 2-inch fringe.....	$18.00
,, 102.	8 ,, half ,, 2 ,, ,, ...	22.00
,, 103.	10 ,, ,, ,, 3 ,, ,, ...	30.00
,, 105.	8 ,, deep ,, 2 ,, ,, ...	24.00

Paper Shades.

Green and white cardboard shades with glossy waterproof surface. Durable and effective, light weight. Holder on shade snaps on over beading of socket.

Regular Style.

No. 1A.	10-inch, flat cone.....per doz.,	$2.25
,, 2A.	8 ,, half ,, ... ,,	1.85
,, 3A.	10 ,, ,, ,, ... ,,	1.95
,, 4A.	12 ,, ,, ,, ... ,,	2.40
,, 5A.	8 ,, deep ,, ... ,,	1.90
,, 6A.	10 ,, ,, ,, ... ,,	2.15

Lower edge protected by being bound with brass.

No. 1R.	10-inch, flat cone.....per doz.,	$3.15
,, 2R.	8 ,, half ,, ... ,,	2.60
,, 3R.	10 ,, ,, ,, ... ,,	2.85
,, 4R.	12 ,, ,, ,, ... ,,	3.50
,, 5R.	8 ,, deep ,, ... ,,	2.65
,, 6R.	10 ,, ,, ,, ... ,,	3.05

Porcelain Shades.

Plain Flat Shades.

In ordering state whether for 2¼-inch or 3¼ inch holders.

No. S-2090.	6-in. flat porcelain shade..per doz.,	$1.40
,, S-2091.	7 ,, ,, ,, ,, .. ,,	1.50
,, S-2092.	8 ,, ,, ,, ,, .. ,,	1.70
,, S-2093.	10 ,, ,, ,, ,, .. ,,	2.20
,, S-2094.	12 ,, ,, ,, ,, .. ,,	4.25
,, S-2095.	14 ,, ,, ,, ,, .. ,,	5.00
,, S-2096.	16 ,, ,, ,, ,, .. ,,	6.80
,, S-2097.	18 ,, ,, ,, ,, .. ,,	9.50
,, S-2098.	20 ,, ,, ,, ,, .. ,,	12.00
,, S-2099.	24 ,, ,, ,, ,, .. ,,	20.00

Flat Fluted Shades.

		Per Doz.
No. S-2100.	6-in. flat fluted porcelain shade	$1.40
,, S-2101.	8 ,, ,, ,, ,, ...	1.70
,, S-2102.	10 ,, ,, ,, ,, ...	2.20



Plain Deep Cone Shade.



Fluted Deep Cone Shade.



Dome Scalloped Shade.



Flat.



Convex.



Cone.



No. 85 Reflector for Chain.



No. 85 Reflector with Brackets.

SHADES and Reflectors.

Porcelain Shades (Continued).

Flat Scalloped Shades. Per Doz.

No. S-2105. 6-in. flat scalloped porcelain shades, $1.40
,, S-2106. 8 ,, ,, ,, ,, ,, 1.70
,, S-2107. 10 ,, ,, ,, ,, ,, 2.20

Plain Deep Cone Shades. Per Doz.

No. S-2110. 7-in. deep cone porcelain shades $1.65
,, S-2111. 8 ,, ,, ,, ,, ,, ... 2.55
,, S-2112. 10 ,, ,, ,, ,, ,, ... 3.60

Fluted Deep Cone Shades. Per Doz.

No. S-2115. 6-in. fluted deep cone porcel. shades, $1.40
,, S-2116. 8 ,, ,, ,, ,, ,, ,, 1.70

Dome Scalloped Shades. Per Doz.

No. S-2118. 6-in. dome scalloped porcel. shades .. $1.40
,, S-2119. 8 ,, ,, ,, ,, ,, .. 2.00

Plain Dome Shades.

(See Shades, glass.)

Reflectors.

Flat Mirror Reflectors. Each.

No. 40..... 8 in. for 2¼ in. shade holder..... $ .85
,, 540.....10 ,, ,, 2¼ ,, ,, ,, ... .85
,, 541.....10 ,, ,, 3¼ ,, ,, ,, ... .85
,, 543 ....12 ,, ,, 2¼ ,, ,, ,, ... 1.00
,, 544.....12 ,, ,, 3¼ ,, ,, ,, ... 1.00
,, 545.....14 ,, ,, 2¼ ,, ,, ,, ... 1.20
,, 546.....14 ,, ,, 3¼ ,, ,, ,, ... 1.20
,, 547.....16 ,, ,, 2¼ ,, ,, ,, ... 1.50
,, 548.....16 ,, ,, 3¼ ,, ,, ,, ... 1.50
,, 549.....18 ,, ,, 2¼ ,, ,, ,, ... 2.00
,, 550.....18 ,, ,, 3¼ ,, ,, ,, ... 2.00
,, 570.....20 ,, ,, 3¼ holder or slip ⅜ iron pipe..... 2.75

Convex Mirror Reflectors. Each.

No. 551.....10 in. for 2¼ in. shade holder..... $ .85
,, 552.....10 ,, ,, 3¼ ,, ,, ,, ... .85
,, 553.....12 ,, ,, 2¼ ,, ,, ,, ... 1.00
,, 554. .....12 ,, ,, 3¼ ,, ,, ,, ... 1.00
,, 555.....14 ,, ,, 2¼ ,, ,, ,, ... 1.20
,, 556. .....14 ,, ,, 3¼ ,, ,, ,, ... 1.20
,, 557.....16 ,, ,, 2¼ ,, ,, ,, ... 1.50
,, 558.....16 ,, ,, 3¼ ,, ,, ,, ... 1.50
,, 559.....18 ,, ,, 2¼ ,, ,, ,, ... 2.00
,, 560.....18 ,, ,, 3¼ ,, ,, ,, ... 2.00

Deep Cone Mirror Reflectors. Each.

No. 61..... 7 in. for 2¼ in. shade holder..... $ .90
,, 561..... 8 ,, ,, 2¼ ,, ,, ,, ... .90
,, 564.....10 ,, ,, 2¼ ,, ,, ,, ... 1.00
,, 565.....10 ,, ,, 3¼ ,, ,, ,, ... 1.00
,, 567.....12 ,, ,, 2¼ ,, ,, ,, ... 1.20
,, 568.....12 ,, ,, 3¼ ,, ,, ,, ... 1.20

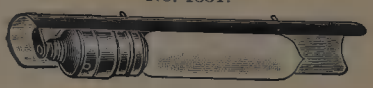
Window Reflectors.

Arranged to hang by chains or by adjustable brackets from ceiling. Sockets not included.

No. 85. Plain mirror glass, to hang by chain, per ft., $2.00
Corrugated mirror glass, to hang by chain.....per ft., 2.20
Wiring extra, net..... ,, .15
Corner mitres.....net, each, 1.50
Adjustable brackets, 16 in., ,, ,, .90
Extra lengths of bracket.... ,, per ft., .30
No. 86. Reflector same shape as above but with white enamel surface inside....per ft., 1.35
No. 87. Ditto, of bright corrugated tin.... ,, 1.20



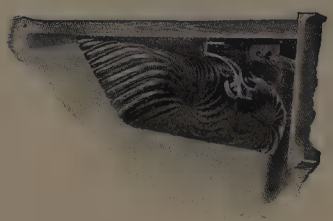
No. 1551.



No. 1552.



L. & L. Adjustable Fixture.



No. 750.



No. 751.



No. 696.



No. 696 (inside).

SHADES and Reflectors.

Reflectors (Continued).

Wheeler Show Case Reflectors.

Made in sections to fit any size of case. Wires run through tubing on back. When ordering, give length and height of show case inside and number of lights.

No. 1551. Nickel-plated show case reflectors, each, $ .90
Tubing only for same ..... per ft., .35
No. 1552. Same as 1551 except fastened to show case by screws ..... each, .75

L. & L. Adjustable Moulding Fixture.

Standard finish, nickel plate, polished brass or old brass.

No. 39. L. & L. adjustable fixture, standard finish, packed 50 in carton ..... each, $ .50
No. 38. L. & L. special reflector, standard finish, packed 36 in carton ..... each, .80
No. 52. L. & L. key socket, standard finish, packed 50 in carton ..... each, .50

X-Ray Poke Bonnet Reflectors.

The X-ray reflectors are the most efficient known for increasing light and saving expense. The principle of corrugating and sterling silver-plating embodied in their construction produces a brilliancy of effect unequaled by other reflectors. The reflectors are constructed on such perfect scientific principles that the lighting capacity of each lamp is practically doubled. This results in the cost being returned in a short time through the saving in lighting expenses.

X-ray reflectors are made of one solid piece of glass, blown, not pressed, into shape. Through a patent process, each reflector is plated with pure sterling silver, the best reflecting surface known to science.

The back of the plating is covered with elastic enamel, which, expanding and contracting according to the degree of heat, never cracks or crazes, but protects the reflecting surface perfectly. For this reason the silver plating never grows dim, clouds or tarnishes. It may be easily cleaned with a damp cloth without injurious effects.

Style 750. Sectional reflector, 14 inches long, with curved adjustable hanger for ceilings ..... each, $6.50
Style 751. With stem 1 foot long, complete, ,, 7.25
For longer stems add ..... per ft., .40

X-Ray Reflectors.

Each reflector is corrugated on scientific principles, according to the purpose for which the reflector is designed. These corrugations assist in scattering or concentrating the light as may be desired, and diffuse the rays so that no shadow from filament of lamp is thrown.

As each reflector is made in one piece, no rays of light are lost in the interstices between different pieces, as happens with reflectors made in several pieces.

The reflecting surface is so brilliant that fewer lamps of less candle-power than were formerly required may be used to produce the same volume of light as with old style reflectors.

By the use of the X-ray reflectors an increase of 100 per cent in light may be obtained with no increase in expense. Or the same volume of light formerly used may be secured at a great saving of expense.

For office desks, jewelers, bowling alleys, etc., the fluted cone reflector is particularly useful.

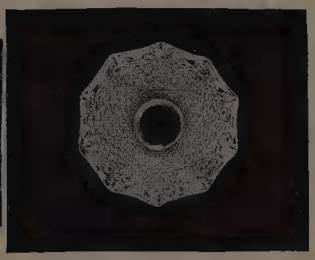
Style No.
696. 8-in. diam., 5 in. deep, 2¼-in. holder (2 doz. per bbl.) ..... per doz., $10.50
10-in. diam., 5½ in. deep, 2¼-in. holder (1½ doz. per bbl.) ..... per doz., 12.00

For ornamental purposes, side lights for show windows, etc., the scalloped dome shade is generally used.

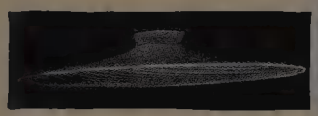
SHADES and Reflectors.



No. 6107.



No. 6107 (inside).



No. 660.



No. 660 (inside).



No. 5533.



No. 35.



No. 25.

Reflectors (Continued).

X-Ray Reflectors.

Style No.

6107. 6¼-in. diam., 2¼ in. deep, 2¼-in. holder (5 doz. per bbl.) . . . . per doz., $9.00

For spreading the light, and for use with clusters of three to six lamps the flat shade is used.

Style No.		Per Doz.
660.	14-in. diam., 3¼-in. hol'r (1¼ doz. per bbl.)	$18.00
	16-in. diam., 3¼-in. hol'r (1 doz. per bbl.)	21.00
	18-in. diam., 3¼-in. hol'r (1 doz. per bbl.)	24.00

For spreading the light of a single incandescent lamp use the flat fluted shade.

Style No.		Per Doz.
695.	8-in. diam., 2¼-in. hol'r (3 doz. per bbl.)	$10.50
	10-in. diam., 2¼-in. hol'r (1½ doz. per bbl.)	12.00

Silk Shades

(see Linen Shades above).

Steel Shades

(see Hoods and Deflectors, under Fixtures, street).

Hubbell Enameled Steel Shade.

A steel shade with a heavy coating of white enamel, making a light and indestructible shade with all the advantages of porcelain.

		Price, Doz.
No. 5533.	10-in. flat enameled steel shade: std. pkg., 1 doz.; pkg. weight, 8 lbs. . .	$4.00

D'Olier Steel Shades.

All shades have an attached shade holder (no extra holder required). The inside surface has a satin aluminum finish, which diffuses a mellow, white light.

No.

35. Parabola extension shade complete, green enamel finish . . . . . per doz., $3.00
Special finishes, ,, 4.50
Diameter, 6 in.; depth, 2½ in.; 90 degrees angle.
Standard package, 72.

No.

25. Half shade (no holder needed), green enamel finish . . . . . per doz., $2.00
Special finishes, ,, 3.00
Diam., 5⅝ in.; depth, 2½ in.; horizontal.
Standard package, 72.

In the universal fixtures described as follows, the whole fixture may be rotated around the plug as an axis, and the shade also may be revolved around the lamp.



No. 302.



No. 402.



No. 602.



Full Cone Tin Shade.



Flat Tin Shade.



Shallow Cone Tin Shade.



Combination Cone Tin Shade.



No. 5440.



Combination Flat Tin Shade.



No. 5431.

SHADES and Reflectors.

Steel Shades (Continued).

D'Olier Steel Shades.

No. 302. Universal socket and shade, brass and green finish ..... each, $1.00
Special finishes ..... ,, 1.10
A combined attachment plug, socket, and shade.
Standard package, 25.

No. 402. Universal socket and shades, brass and green finish ..... each, $1.20
Special finishes ..... ,, 1.32
Same as No. 302, but for two lamps.
Standard package, 25.

No. 602. Universal socket and shades, brass and green finish ..... each, $1.90
Special finishes ..... ,, 2.09
The No. 602 allows two smaller candle-power lamps to be used instead of one large lamp.

Special finishes: oxidized brass, polished brass, nickel, brushed brass, polished copper, verde brass, brushed copper, oxidized copper, dipped brass, gun metal black, dull black.

Tin Shades.

Made of heavy tin, finished green outside, white enameled inside.

Full Cone Shades.

No. 530.	8 in., for 2¼-in. shade holder	per doz.,	$2.25
,, 532.	10 ,, ,, 2¼ ,, ,, ...	,,	3.00
,, 535.	12 ,, ,, 2¼ ,, ,, ...	,,	4.00
,, 536.	12 ,, ,, 3¼ ,, ,, ...	,,	4.00

Flat Shades.

No. 501.	8 in., for 2¼-in. shade holder	per doz.,	$1.75
,, 505.	10 ,, ,, 2¼ ,, ,, ...	,,	2.25
,, 509.	12 ,, ,, 2¼ ,, ,, ...	,,	3.00
,, 510.	12 ,, ,, 3¼ ,, ,, ...	,,	3.00
,, 513.	14 ,, ,, 3¼ ,, ,, ...	,,	4.25
,, 515.	16 ,, ,, 3¼ ,, ,, ...	,,	5.50
,, 517.	18 ,, ,, 3¼ ,, ,, ...	,,	7.00

Shallow Cone Shades.

No. 521.	8 in., for 2¼-in. shade holder	per doz.,	$1.80
,, 523.	10 ,, ,, 2¼ ,, ,, ...	,,	2.35
,, 525.	12 ,, ,, 2¼ ,, ,, ...	,,	3.10
,, 526.	12 ,, ,, 3¼ ,, ,, ...	,,	3.10

Combination Full Cone Shades.

These shades require no shade holder to attach them to socket, as the holder or clamp is on the shade itself.

No. 537.	8-in. cone combination	per doz.,	$2.65
,, 538.	10 ,, ,, ,, ...	,,	3.40

Hubbell Combination Cone Tin Shades.

		Std. Pkg.	Pkg. Weight.	Price, Doz.
No. 5440.	8-in. cone tin shade	5 doz.	19 lbs.	$3.50
,, 5441.	10 ,, ,, ,, ,, ...	5 ,,	28 ,,	3.80
,, 5442.	12 ,, ,, ,, ,, ...	5 ,,	40 ,,	5.60

Combination Flat Shades.

No. 500.	8-in. flat combination	per doz.,	$2.15
,, 519.	10 ,, ,, ,, ...	,,	2.65

Hubbell Combination Flat Tin Shades.

		Std. Pkg.	Pkg. Weight.	Price, Doz.
No. 5431.	8-in. flat tin shade	5 doz.	16 lbs.	$2.50
,, 5432.	10 ,, ,, ,, ,, ...	5 ,,	21 ,,	3.00
,, 5433.	12 ,, ,, ,, ,, ...	5 ,,	41 ,,	4.40
,, 5456.	14 ,, ,, ,, ,, ...	5 ,,	48 ,,	5.60
,, 5457.	16 ,, ,, ,, ,, ...	5 ,,	64 ,,	6.90
,, 5476.	18 ,, ,, ,, ,, ...	5 ,,	76 ,,	8.50

Combination Shallow Cone Shades.

No. 528.	8-in. shallow cone combination	per doz.,	$2.20
,, 529.	10 ,, ,, ,, ,, ...	,,	2.75

Hubbell Combination Shallow Cone Shades.

		Std. Pkg.	Pkg. Weight.	Price, Doz.
No. 5462.	8-in. shallow cone tin shade	5 doz.	16 lbs.	$2.90
,, 5463.	10 ,, ,, ,, ,, ,, ...	5 ,,	21 ,,	3.35
,, 5464.	12 ,, ,, ,, ,, ,, ...	5 ,,	41 ,,	4.70
,, 5465.	14 ,, ,, ,, ,, ,, ...	5 ,,	48 ,,	6.00
,, 5466.	16 ,, ,, ,, ,, ,, ...	5 ,,	64 ,,	7.30



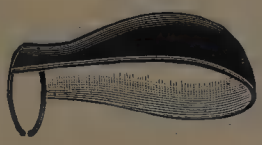
No. 527.



No. 357.



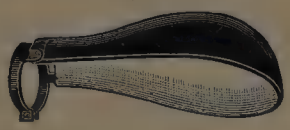
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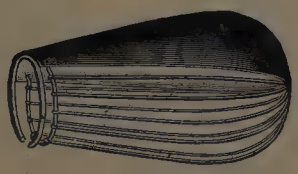
No. 356.



No. 367.



No. 366.



No. 356½.



No. 5429.



No. 345.



No. 340.

SHADES and Reflectors.

Tin Shades (Continued).

Extra Deep Cone Shades.

These are regular tin shades to take the standard 2¼-in. holder, but are made deep cone to cover the lamp entirely. Depth, 5½ inches.

No. 527. 7 in., for 2¼-in. shade holder ... per doz., $3.60

Half Cone Shade.

Green outside; white inside.

No. 357. For 2¼ in. shade holder ..... per doz., $3.00

Scoop Shade.

Green outside, white inside.

No. 358. For 3¼ in. shade holder ..... per doz., $5.00

Half Shade.

Green outside, white inside, with wire ring.

No. 356. For 2¼ in. shade holder ..... per doz., $2.50

Half Shade with Rim.

No. 367. For 2¼ in. shade holder ..... per doz., $3.00

Half Combination Shade.

Requires no shade holder.

No. 366. Half shade combination ..... per doz., $3.00
,, 5429. Hubbell half tin shade ..... ,, 3.25

Half Shade with Guard.

Provided with ring to fit shade holder and wire guard attached to the shade.

No. 356½. For 2¼ in. shade holder ..... per doz., $5.50

Billiard Table Shade.

Green outside, glossy white enamel inside.

No. 345. For 2¼ in. shade holder ..... per doz., $6.00

Footlight Shade.

Green outside, white inside.

An inexpensive shade for hall and theatrical purposes.

No. 349. For 2¼ in. shade holder ..... per doz., $5.00

SHADE Support or Holder (see H).

SHEET Fibre (see F).

SHELLAC.

Shellac.

We are prepared to furnish all grades of shellac, from the highest grade of orange shellac to wood alcohol shellac.

Note that unless cans are furnished we have to make an extra charge of approximately 25 cents for same. (For Brushes for shellac, see B.)

No. S-2130. Wood alcohol shellac ..... per gal., $4.00

SHIP Food Warmer (see W).

SHOES, Brake.

Brake Shoes.

We are prepared to furnish prices on application on all styles of gray iron brake shoes either with or without inserts.



Wheel Truing Brake Shoe.

SHOES, Brake (Continued).

Wheel Truing Brake Shoe.

The wheel truing brake shoe is a brake shoe to be used in place of the regular shoe when there is a case of flat wheel. It removes the surplus metal and trues up the wheel while performing the regular service. May be then removed and held for the next case of flat wheel or grooved tire.

Prices on application.

SHOES, Third Rail.

G. E. Third Rail Shoes.

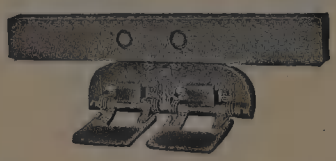
	Description.	Approx. Wt. in Lbs.	List Price.
No. 38585.	DN 25A (gravity type)	70	$53.00
,, 38586.	DN 43A (slipper ,,)	63	33.00
,, 38587.	DN 40A (,, ,,)	142	70.00



No. 38585.



No. 38586.



No. 38587.

SHOVELS and Spoons.

Long Handle Shovels.

With 9-inch strap and hickory handles. Diameter of handle, 1¾ inches.

No. S-2140.	6-ft. telegraph shovel. ....per doz.,	$18.00
,, S-2141.	7 ,, ,, ,, ,,	20.00
,, S-2142	8 ,, ,, ,, ... ,,	21.00
,, S-2143.	9 ,, ,, ,, ... ,,	24.00

With 22-inch strap and hickory handles. Diameter of handle, 1¾ inches.

No. S-2145.	6-ft. telegraph shovel. ....per doz.,	$23.00
,, S-2146.	7 ,, ,, ,, ... ,,	25.00
,, S-2147.	8 ,, ,, ,, ... ,,	26.00
,, S-2148.	9 ,, ,, ,, ... ,,	29.00

Post Hole Spoons.

With 9-inch strap and hickory handles. Diameter of handles, 2 inches.

No. S-2150.	6-ft. post hole spoon. ....per doz.,	$18.00
,, S-2151.	7 ,, ,, ,, ... ,,	20.00
,, S-2152.	8 ,, ,, ,, ... ,,	21.00
,, S-2153.	9 ,, ,, ,, ... ,,	24.00

With 22-inch strap and hickory handles. Diameter of handle, 2 inches.

No. S-2155.	6-ft. post hole spoon....per doz.,	$23.00
,, S-2156.	7 ,, ,, ,, ... ,,	25.00
,, S-2157.	8 ,, ,, ,, ... ,,	26.00
,, S-2158.	9 ,, ,, ,, ... ,,	29.00



Long Handle Shovel.



Post Hole Spoon.

SIDE Brackets (see Brackets, brass side).

SIFTERS, Sand (see Screens).

SIGNAL Bells (see B).

SIGNAL Lanterns (see Lanterns).

SIGNAL or Strap Keys (see K).

SIGNS, Advertising.

We are prepared to furnish estimates on electrical advertising signs complete on receipt of full specifications.

For prices on separate letters, see Letters, sign.



For Wood Poles.

SIGNS, Car.

Car Signs No. S-2160.

Black letters on a white ground, complete with iron bracket to screw to wooden pole, side of building, etc., lettered "Cars Stop Here," each, $1.00



Enameled Car Sign.



Revolving Car Sign.



Chamois Skin.

SIGNS, Car (Continued).

Enameled Car Signs, No. S-2165.

Double-faced enamel car signs, white letters on blue background, size, 10 inches by 19 inches. (To order only.) Other styles and sizes on application.

Enameled car signs.....each, $5.00

Revolving Car Signs, No. S-2170.

We will furnish estimates on revolving car signs of all styles and lengths. Be sure to give full information with sketch showing curve of roof, style of brackets wanted, etc.

SIGNS, Electric (see Letters, sign).
SKEDOODLE Plug (see Lamps, incandescent).
SKELETON Bells (see B).
SKINS.

French Chamois Skins.

No. 5.	Size 21 x 33 ..... per doz.,	$6.50
,, 4.	,, 22 x 35 ..... ,,	7.00
,, 3.	,, 24 x 36 ..... ,,	8.00
,, 2.	,, 25 x 37 ..... ,,	9.00
,, 1.	,, 26 x 38 ..... ,,	10.00
,, 0.	,, 28 x 41 ..... ,,	12.00

SLAB Bolts (see Bolts, switchboard).
SLATE.

Plain Slate Switchboards.

Price per foot.
Contents superficial feet.

Thickness.	1′ to 3′	3′ to 8′	8′ to 12′	12′ to 15′	15′ to 20′	20′ to 25′	25′ to 30′
1 in. or less	$ .52	$ .60	$ .66	$ .72	$ .80	$ .86	$ .96
Thicker than 1 in. to 1¼ in.	.58	.66	.72	.78	.86	.94	1.04
,, ,, 1¼ ,, ,, 1½ ,,	.66	.72	.78	.84	.92	1.02	1.14
,, ,, 1½ ,, ,, 1¾ ,,	.74	.80	.86	.92	1.02	1.12	1.24
,, ,, 1¾ ,, ,, 2 ,,	.82	.88	.94	1.00	1.10	1.22	1.36

Polished Black Switchboards.

Price per foot.
Contents superficial feet.

Thickness.	1′ to 3′	3′ to 8′	8′ to 12′	12′ to 15′	15′ to 20′	20′ to 25′	25′ to 30′
1 in. or less	.70	$ .78	$ .84	$ .95	$1.08	$1.19	$1.34
Thicker than 1 in. to 1¼ in.	.76	.84	.90	1.01	1.14	1.27	1.42
,, ,, 1¼ ,, ,, 1½ ,,	.84	.90	.96	1.07	1.20	1.35	1.52
,, ,, 1½ ,, ,, 1¾ ,,	.94	1.02	1.08	1.19	1.34	1.49	1.66
,, ,, 1¾ ,, ,, 2 ,,	1.04	1.10	1.16	1.27	1.42	1.59	1.78

Marbleized Slate Switchboards.

Price per foot.
Contents superficial feet.

Thickness.	1′ to 3′	3′ to 8′	8′ to 12′	12′ to 15′	15′ to 20′	20′ to 25′	25′ to 30′
1 in. or less	$ .72	$ .80	$ .86	$ .97	$1.10	$1.21	$1.36
Thicker than 1 in. to 1¼ in.	.78	.86	.92	1.03	1.16	1.29	1.44
,, ,, 1¼ ,, ,, 1½ ,,	.86	.92	.98	1.09	1.22	1.37	1.54
,, ,, 1½ ,, ,, 1¾ ,,	.96	1.04	1.10	1.21	1.36	1.51	1.68
,, ,, 1¾ ,, ,, 2 ,,	1.06	1.12	1.18	1.29	1.44	1.61	1.80

Plain Slate.

Price per foot.
Contents superficial inches.
All angles, right angles.

Thickness.	12″ or less.	12″ to 24″	24″ to 36″	36″ to 48″	48″ to 60″	60″ to 72″	72″ to 84″	84″ to 96″	96″ to 108″	108″ to 120″	120″ to 132″	132″ to 144′
⅝ in. or less	$.07	.08	.10	.12	.14	.16	.20	.23	.26	.30	.32	.36
From ⅝ to 1 in.	.09	.10	.12	.14	.16	.18	.22	.26	.30	.34	.36	.40
,, 1 ,, 1¼ ,,	.12	.14	.16	.19	.22	.24	.26	.30	.34	.40	.44	.48
,, 1¼ ,, 1½ ,,	.16	.18	.20	.23	.26	.30	.34	.38	.42	.48	.52	.56
,, 1½ ,, 1¾ ,,	.18	.20	23	.26	.30	.34	.38	.42	.46	.52	.58	.64
,, 1¾ ,, 2 ,,	.21	.23	.26	.30	.35	.41	.46	.52	.58	.64	68	.72

SLATE (Continued).

All angles, right angles.

Black Polished Slate.

Contents Superficial Inches.	12″ or less.	12″ to 24″	24″ to 36″	36″ to 48″	48″ to 60″	60″ to 72″	72″ to 84″	84″ to 96″	96″ to 108″	108″ to 120″	120″ to 132″	132″ to 144″
1 in. or less in thickness	14c.	16c.	20c.	23c.	26c.	28c.	32c.	37c.	42c.	47c.	52c.	58c.
Over 1 in., up to and including 1½ in.,	22	24	28	32	36	41	46	51	56	62	69	75
,, 1½ ,, ,, ,, ,, 2 ,,	28	30	33	40	46	54	62	70	78	83	88	92

Marbleized Slate.

All angles, right angles.

Contents Superficial Inches.	12″ or less.	12″ to 24″	24″ to 36″	36″ to 48″	48″ to 60″	60″ to 72″	72″ to 84″	84″ to 96″	96″ to 108″	108″ to 120″	120″ to 132″	132″ to 144″
1 in. or less in thickness	16c.	18c.	22c.	25c.	28c.	30c.	34c.	39c.	44c.	49c.	54c.	60c.
Over 1 in.,up to and including 1½ in.,	24	26	30	34	38	43	48	53	58	64	71	77
,, 1½ ,, ,, ,, ,, 2 ,,	30	32	35	42	48	56	64	72	80	86	90	94

Slate Discs.

1 inch thick or less.

Diameter.	Price.	Diameter.	Price.	Diameter.	Price.
3-inch	$ .16	9-inch	$ .64	14-inch	$1.44
4 ,,	.22	10 ,,	.76	15 ,,	1.66
5 ,,	.29	11 ,,	.89	16 ,,	1.92
6 ,,	.35	12 ,,	1.05	17 ,,	2.08
7 ,,	.41	13 ,,	1.25	18 ,,	2.24
8 ,,	.51				

Black enamel or marbleized finish, same price as for square pieces of corresponding size extra.

Portable Bases.

Flowed Finish.

5-inch.		6-inch.	
1 inch thick, square	per 100, $11.00	1 inch thick, square	per 100, $15.00
1 ,, ,, beveled	,, 12.00	1 ,, ,, beveled	,, 16.00

Black Polished.

1 inch thick, square	per 100, $14.00	1 inch thick, square	per 100, $20.00
1 ,, ,, beveled	,, 15.00	1 ,, ,, beveled	,, 22.00

Marbleized.

1 inch thick, square	per 100,	1 inch thick, square	per 100,
1 ,, ,, beveled	,,	1 ,, ,, beveled	,,

(Prices on application).

On larger or thicker slabs than quoted, we make special price on application. For beveling, 10 per cent additional to list. Pieces longer than twice the width, 10 per cent additional. All small pieces less than twenty-five for one order, 10 per cent additional and sent by express.

Flowed finish on switchboards, 1 cent net less than black polished. Small pieces containing less than 72 inches, ½ cent net less; over 72 inches up to 144 inches, 1 cent net less.

Drilling holes, ⅜ inch or less diameter in pieces ¾ inch or less thick, 3 cents per dozen, net. Counter-sunk holes, ¾ inch or less in diameter, 2 cents per dozen, net.

On slate discs, prices for flowed finish, black polished, or marbleized finish, same as for square pieces of the same diameter.

Special work, irregular shapes, etc., solicited; prices on application.

All goods f. o. b. mill or quarry station.

Monson Slate.

This Maine slate is the best for all electrical uses, having a very high insulation test. It is so closely grained that it is wholly free from moisture absorption, which especially adapts it for all electrical purposes.

It is free from all metallic veins, spars, spots, etc., and can be easily worked and drilled. Extra charge for beveling.

SLATE.

Monson Slate (Continued).

Switchboards.

Please note that a slab containing exactly 3 square feet will be charged at the 3 to 8 feet price, one containing exactly 8 feet at the 8 to 12 feet price, etc. Prices per sq. ft.

1 inch thick or less.

Superficial Contents.	Plain Slate.	Superficial Contents.	Plain Slate.
1 to 3 square feet	$ .60	15 to 20 square feet	$.80
3 ,, 8 ,, ,,	.62	20 ,, 25 ,, ,,	.86
8 ,, 12 ,, ,,	.66	25 ,, 30 ,, ,,	.96
12 ,, 15 ,, ,,	.72	30 ,, 35 ,, ,,	1.04

Over 1 in., up to and including 1¼ in. in thickness.

1 to 3 square feet	$ .68	15 to 20 square feet	$ .86
3 ,, 8 ,, ,,	.70	20 ,, 25 ,, ,,	.94
8 ,, 12 ,, ,,	.74	25 ,, 30 ,, ,,	1.04
12 ,, 15 ,, ,,	.78	30 ,, 35 ,, ,,	1.14

Over 1¼ in., up to and including 1½ in. in thickness.

1 to 3 square feet	$ .72	15 to 20 square feet	$ .92
3 ,, 8 ,, ,,	.74	20 ,, 25 ,, ,,	1.02
8 ,, 12 ,, ,,	.78	25 ,, 30 ,, ,,	1.14
12 ,, 15 ,, ,,	.84	30 ,, 35 ,, ,,	1.24

Over 1½ in., up to and including 1¾ in. in thickness.

1 to 3 square feet	$ .78	15 to 20 square feet	$1.02
3 ,, 8 ,, ,,	.82	20 ,, 25 ,, ,,	1.12
8 ,, 12 ,, ,,	.86	25 ,, 30 ,, ,,	1.24
12 ,, 15 ,, ,,	.92	30 ,, 35 ,, ,,	1.36

Over 1¾ in., up to and including 2 in. in thickness.

1 to 3 square feet	$ .84	15 to 20 square feet	$1.10
3 ,, 8 ,, ,,	.88	20 ,, 25 ,, ,,	1.22
8 ,, 12 ,, ,,	.94	25 ,, 30 ,, ,,	1.36
12 ,, 15 ,, ,,	1.00	30 ,, 35 ,, ,,	1.48

Small Slates.

Plain slate. All angles, right angles.

Superficial Contents in Inches.	Less than 12	12 to 24	24 to 36	36 to 48	48 to 60	60 to 72	72 to 84	84 to 96	96 to 108	108 to 120	120 to 132	132 to 144
⅝ in. or less in thickness	7c.	8c.	10c.	12c.	14c.	16c.	20c.	23c.	26c.	30c.	32c.	36c.
Over ⅝, to and including 1 in. thick,	9	10	12	14	16	18	22	26	30	34	36	40
Over 1, to and including 1¼ in. thick,	12	14	16	19	22	24	26	30	34	40	44	48
Over 1¼, to and including 1½ in. thick,	16	18	20	23	26	30	34	38	42	48	52	56
Over 1½, to and including 1¾ in. thick,	18	20	23	26	30	34	38	42	46	52	58	64
Over 1¾, to and including 2 in. thick,	21	23	26	30	35	41	46	52	58	64	68	72

For beveling pieces, 10 per cent additional.

When the length of a piece is more than twice the width, as 12 in. x 3 in., 10 per cent additional.

Above prices for not less than 10 pieces of a size. Less than 10 pieces of a size, 10 per cent additional.

For drilling holes not over ⅜ inch in diameter in pieces ¾ inch thick or less, per dozen holes, 3 cents net.

For drilling counter bores up to ¾ inch in diameter, per dozen holes, 3 cents net.

SLEET Cutters (see C).

SLEET Proof Pulleys (see P).

SLEET Wheels (see W).

SLEEVES (see Splicers, Connectors, etc.).

SLEEVES, Paper.



Paper Cable Insulators.

American Paper Cable Insulators No. S-2175.

These paper sleeves are used for insulating the spliced ends of telephone cables. They are packed in pasteboard boxes of 110 each, the standard length being 3 inches.

Strong, tough paper, spirally wound. Prices on application, according to quantity used.

SLEEVES, Trolley Wire.



Trolley Protecting Sleeve.

Trolley Protecting Sleeves.

A copper protecting sleeve for protecting the trolley wire at the ends of frogs, crossings, section insulators, etc.

No. 299.	4 ft. long, for 1/0 wire	per 100,	$95.00
,, 658.	4 ,, ,, ,, 2/0 ,,	,,	110.00
,, 1526.	4 ,, ,, ,, 3/0 ,,	,,	125.00
,, 1527.	4 ,, ,, ,, 4/0 ,,	,,	140.00

SLEEVING, Cotton (see Tapes).

SNAKE Wire (see Wire, fish).

SNIPS (see Scissors, Pliers, etc.).

SOAPSTONE.

Powdered Soapstone.

No. S-2176. For use as a lubricant in pulling wires into conduits, etc. ..... per lb., $ .15

SOCKET Attachment (see A).

SOCKET Rings (see R).

SOCKETS and Receptacles, see following headings:

Edison Key Sockets.
,, Keyless Socket.
,, Key Receptacles.
,, Keyless Receptacles.
,, Porcelain Sockets.
,, Porcelain Receptacles.
,, Rosette Receptacles.
,, Fusible Receptacles.
,, Weatherproof Sockets and Receptacles.
,, Sockets for 500-Volt Circuits.
,, Moulded Mica Sockets.
Marine Sockets and Receptacles.
Norbitt Sockets and Receptacles.
New Code Receptacles and Sockets.
Street Series Incandescent Sockets.
Brass Shell Series Sockets for T. H. Lamps.
Miniature and Candelabra Sockets and Receptacles.

Special Finishes and Designs.

Key and Keyless Sockets.

The following special finishes on sockets, except sockets with shade holders attached and pull sockets, carry an extra price of 4 cents list: all brass finishes except sand blast, all copper finishes except sand blast, polished gilt, polished nickel, statuary bronze, wrought iron, bauer barff.

All other finishes carry an extra price of 6 cents list, except on orders for 500 of one finish, in which case the list price will be 4 cents extra. Sockets with shade holders attached, in special finishes, 2 cents list more than corresponding sockets without shade holders. Standard packages same as regular finish, but regular and special finishes of one catalogue number may be assorted to make up quantity.

The standard length of the key upon the standard key socket is not to exceed 1 inch from the shell to the extreme end of the key.

For sockets with extra long keys, add 5 cents each to list price of corresponding standard socket. Standard package is 100.

For sockets with extension keys, add 12 cents each to list price of corresponding standard socket. Standard package is 100.



No. 1317.



No. 44147.
Security Snap.



No. 9386.



No. 50740.



No. 35000.



No. 5455.



No. 27740.

SOCKETS and Receptacles.

Special Finishes and Designs (Continued).

Pull Sockets.

Sockets in old brass, rich gilt, oxidized copper, nickel plate, add to list price ..... $ .06

Sockets in old English bronze, oxidized brass, Etruscan gilt, mottled copper, polished bronze, polished steel, bauer barff, lemon brass, burnished gilt, antique brass, English bronze, gold bronze, antique copper, polished copper, wrought iron, acid bronze, ormolu gilt, add to list price ..... .10

Sockets in oxidized silver, Butler's silver, Pompeiian bronze, polished silver, satin gold, Roman gold, gun metal, sand blast antique brass, sand blast old brass, add to list price ..... .15

Special finishes on extra chain, add to list price per foot ..... .02
Standard length of chain for pull sockets, 8 inches.

Extra chain for pull sockets, when attached to socket, add to list price per foot ..... .10

Acorn for pull sockets, add to list price ..... .06

All sockets are furnished fibre lined and Edison base unless otherwise specified.

Edison Key Sockets.

No.	Fibre Lined.	Std. Pkg.	Price Each.
9386.	Key socket, $\frac{1}{8}$-in. pipe	500	$ .33
44147.	Key socket, $\frac{1}{8}$-in. pipe, "Security Snap"	500	.33
50760.	Key socket, $\frac{3}{8}$-in. pipe	250	.39
44148.	Key socket, $\frac{3}{8}$-in. pipe, "Security Snap"	250	.39
1317.	Key fixture socket, 3 bayonet joints, $\frac{1}{8}$ in.	500	.33
1318.	Key fixture socket, 3 bayonet joints, $\frac{3}{8}$ in.	250	.39
44814.	Key socket, male thread on bushing, $\frac{3}{8}$-in. pipe, "Security Snap"	250	.39
44151.	Key socket, with moulded bushing, for pendant use, "Security Snap"	500	.33
99386.	Key socket, with cap, for reënforced cord, 3 screws	250	.39
50740.	Key socket, removable ring, $\frac{1}{8}$-in. pipe	500	.35
50762.	Key socket, removable ring, $\frac{3}{8}$-in. pipe	250	.41
35000.	Pull socket, $\frac{1}{8}$-in. pipe	250	.60
35001.	Pull socket, $\frac{3}{8}$-in. pipe	100	.66
5455.	Pull socket, candelabra	50	.60
27740.	Key socket, $\frac{1}{8}$-in. pipe, $2\frac{1}{4}$-in. shade holder	500	.39
44153.	Key socket, $\frac{1}{8}$-in. pipe, $2\frac{1}{4}$-in. shades, "Security Snap,"	500	.39
44157.	Key socket with moulded bushing for pendant use for $2\frac{1}{4}$-in. shades, "Security Snap"	500	.39
28719.	Key socket, $\frac{3}{8}$-in. pipe, $2\frac{1}{4}$-in. shade holder	250	.45
44154.	Key socket, $\frac{3}{8}$-in. pipe, $2\frac{1}{4}$-in. shades, "Security Snap"	250	.45
29400.	Key socket, $\frac{1}{8}$-in. pipe, $3\frac{1}{4}$-in. shade holder	100	.47
44159.	Key socket, $\frac{1}{8}$-in. pipe, $3\frac{1}{4}$-in. shades, "Security Snap"	100	.47
29401.	Key socket, $\frac{3}{8}$-in. pipe, $3\frac{1}{4}$-in. shade holder	100	.53
44160.	Key socket, $\frac{3}{8}$-in. pipe, $3\frac{1}{4}$-in. shades, "Security Snap"	100	.53
44163.	Key socket with moulded bushing for pendant use for $3\frac{1}{4}$-in. shades, "Security Snap"	100	.47
1431.	Key fixture socket, 3 bayonet joints, $\frac{1}{8}$ in., with $2\frac{1}{4}$-in. shade holder	500	.39
1432.	Key fixture socket, 3 bayonet joints, $\frac{3}{8}$ in., with $2\frac{1}{4}$-in. shade holder	250	.45
1631.	Key fixture socket, 3 bayonet joints, $\frac{1}{8}$ in., with $3\frac{1}{4}$-in. shade holder	100	.47



No. 29623.



No. 50709.



No. 9392.



No. 44149.
Security Snap.



No. 1319.



No. 50741.



No. 50750.



No. 66237.



No. 27741.

SOCKETS and Receptacles.

Edison Key Sockets (Continued)

No.	Fibre Lined.	Std. Pkg.	Price Each.
1632.	Key fixture socket, 3 bayonet joints, ⅜ in., with 3¼-in. shade holder	100	$ .53
29623.	Key socket for electrolier, ⅛ in.	250	.55
29624.	Key socket for electrolier, ⅜ in	100	.61

The 3-way socket is designed for use with a 3-way switch or in connection with another 3-way socket. By its use a lamp can be lighted or extinguished at either socket or switch, irrespective of the position in which the socket or switch keys were left when previously used. It is of considerable convenience in halls, corridors, cellars, and similar places where entrance and exit may be at different places, and in rooms where the lamp may be located in a fixture and the switch at the door or bedside.

50709.	Key socket, 3-way, for ⅛-in. pipe	50	.80
50759.	Key socket, 3-way, for ⅜-in. pipe	25	.86

Edison Keyless Sockets.

No.	Fibre Lined	Std. Pkg.	Price Each.
9392.	Keyless socket, ⅛-in. pipe	500	$ .30
44149.	Keyless socket, ⅛-in. pipe	500	.30
44152.	Keyless socket, with moulded bushing for pendant use	500	.30
50768.	Keyless socket, ⅜-in. pipe	250	.36
44150.	Keyless socket, ⅜-in. pipe	250	.36
44815.	Keyless socket, male thread on bushing, ⅜-in. pipe	250	.36
1319.	Keyless fixture socket, 3 bayonet joints, ⅛ in.,	500	.30
1320.	Keyless fixture socket, 3 bayonet joints, ⅜ in.,	250	.36
99392.	Keyless socket with cap for reënforced cord, 3 screws	500	.30
50741.	Keyless socket, removable ring, ⅛-in. pipe	500	32
50771.	Keyless socket, removable ring, ⅜-in. pipe	250	38
50750.	Keyless socket, acorn shell, ⅛-in. pipe	250	.38
50770.	Keyless socket, acorn shell, ⅜-in. pipe	100	.44
66237.	Electrolier socket, ⅛-in. pipe	250	.40
50766.	Electrolier socket, ⅜-in. pipe	100	.46
27741.	Keyless socket, ⅛-in. pipe, 2¼-in. shade holder	500	.36

(*Continued on next page.*)



No. 50753.



No. 9184.



No. 35006.



No 27742.



No. 50748.



No. 50747.



No. 28721.



Nos. 50745 and 35780.



No. 9185.

SOCKETS and Receptacles.

Edison Keyless Sockets (Continued).

No.	Fibre Lined.	Std. Pkg.	Price Each.
44155.	Keyless socket, $\frac{1}{8}$-in. pipe, $2\frac{1}{4}$-in. shades . .	500	$ .36
44158.	Keyless socket with moulded bushing for pendant use for $2\frac{1}{4}$-in. shades	500	.36
28720.	Keyless socket, $\frac{3}{8}$-in. pipe, $2\frac{1}{4}$-in. shade holder	250	.42
44156.	Keyless socket, $\frac{3}{8}$-in. pipe, $2\frac{1}{4}$-in. shades . .	250	.42
29402.	Keyless socket, $\frac{1}{8}$-in. pipe, $3\frac{1}{4}$-in. shade holder	100	.44
44161.	Keyless socket, $\frac{1}{8}$-in. pipe, $3\frac{1}{4}$-in. shades . . .	100	.44
44164.	Keyless socket with moulded bushing for pendant use for $3\frac{1}{4}$-in. shades	100	.44
29403.	Keyless socket, $\frac{3}{8}$-in. pipe, $3\frac{1}{4}$-in. shade holder	100	.50
44162.	Keyless socket, $\frac{3}{8}$-in. pipe, $3\frac{1}{4}$-in. shades . . .	100	.50
1433.	Keyless fixture socket, 3 bayonet joints, $\frac{1}{8}$ in., with $2\frac{1}{4}$-in. shade holder	500	.36
1434.	Keyless fixture socket, 3 bayonet joints, $\frac{3}{8}$ in., with $2\frac{1}{4}$-in. shade holder	250	.42
1633.	Keyless fixture socket, 3 bayonet joints, $\frac{1}{8}$ in., with $3\frac{1}{4}$-in. shade holder	100	.44
1634.	Keyless fixture socket, 3 bayonet joints, $\frac{3}{8}$ in., with $3\frac{1}{4}$-in. shade holder	100	.50

Edison Key Receptacles.

9184.	Key receptacle	250	$ .44
27742.	Key receptacle, with $2\frac{1}{4}$-in. shade holder	250	.50
29404.	Key receptacle, with $3\frac{1}{4}$-in. shade holder	100	.58
50747.	Key receptacle, removable ring	250	.44
50748.	Key receptacle, removable ring, concealed base	250	.44
50753.	Angle key receptacle . .	100	.55
35006.	Pull receptacle	100	.70
35028.	Pull receptacle, concealed base	100	.75
35021.	Angle pull receptacle .	50	.70
28721.	Angle key receptacle, $2\frac{1}{4}$-in. shade holder . .	100	.61
29406.	Angle key receptacle, $3\frac{1}{4}$-in. shade holder . .	100	.69

Edison Keyless Receptacles.

35780.	Keyless receptacle	250	$ .30
9185.	Keyless receptacle	250	.40

(*Continued on next page.*)



No. 40537.



No. 50723.



No. 27743.



No. 50755.



No. 50785.



Nos. 50746, 50797, 50798.



No. 24998.



No. 28722.



No. 9395.



No. 9393.



No. 50799.



No. 50896.



No. 9171.



No. 9402 and 50715.



No. 11221.

SOCKETS and Receptacles.

Edison Keyless Receptacles (Continued).

No.	Fibre Lined.	Std. Pkg.	Price Each.
27743.	Keyless receptacle, with $2\frac{1}{4}$-in. shade holder..	250	$ .46
29405.	Keyless receptacle, with $3\frac{1}{4}$-in. shade holder ..	100	.54
50745.	Keyless receptacle, removable ring.....	250	.30
40537.	Inner parts for 50745, without outer shell lining or rubber ring,	250	.18
50723.	Keyless receptacle, removable ring.....	100	.30
50746.	Keyless receptacle, concealed base.....	250	.40
40507.	Inner parts for 50746, without outer shell lining or rubber ring,	250	.17
50786.	Keyless receptacle, chocolate base.....	250	.30
29176.	Keyless receptacle, chocolate base.....	100	.30
50785.	Keyless receptacle, large removable ring, concealed base.....	100	.45
50755.	Angle keyless receptacle,	100	.50
28722.	Angle keyless receptacle, $2\frac{1}{4}$-in. shade holder.....	100	.56
29407.	Angle keyless receptacle, $3\frac{1}{4}$-in. shade holder.....	100	.64
50797.	Keyless switchboard receptacle.....	100	.35
50798.	Keyless switchboard receptacle.....	100	.30
24998.	Keyless switchboard receptacle.....	100	.30

Edison Porcelain Sockets.

No.		Std. Pkg.	Price Each.
9395.	Pendant key socket, without shade holder,	250	$ .30
9393.	Pendant keyless socket, without shade holder,	250	.25
50799.	Key socket, metal top, $\frac{1}{8}$ in.....	100	.35
34947.	Key socket, metal top, $\frac{3}{8}$ in.....	100	.35
50896.	Keyless socket, metal top, $\frac{1}{8}$ in.....	100	.30
34948.	Keyless socket, metal top, $\frac{3}{8}$-in.....	100	.30

Edison Porcelain Receptacles.

No.		Std. Pkg.	Price Each.
9171.	Keyless receptacle.....	500	$ .10
9171 (Spec.).	Sign receptacle.	500	.16⅔
11221.	Keyless receptacle, spring contact.....	500	.20
50757.	Keyless receptacle, copper fittings.....	250	.20
9402.	Keyless receptacle, cleat, $2\frac{5}{16}$-in. base...	500	.15
50715.	Keyless receptacle, cleat, 2-in. base.....	500	.15

(*Continued on next page.*)



No. 9403.



No. 9394.



No. 9514.



No. 50716.



No. 9397.



No. 50724.





No. 50726.



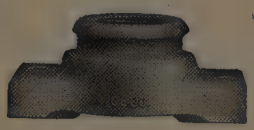
No. 50717.



No. 33581.



No. 33582.



No. 36519.



No. 23210.



No. 50782.



No. 50744.



No. 50899.



No. 34152.



No. 28795.



No. 30599.



No. 37695.

SOCKETS and Receptacles.

Edison Porcelain Receptacles (Continued).

No.		Std. Pkg.	Price Each.
9403.	Keyless receptacle for shade holder	250	$ .25
9394.	Keyless receptacle, removable ring, without shade holder	250	.20
9514.	Flush pocket receptacle,	250	.30
9397.	Interior conduit receptacle	250	.20
50716.	Keyless receptacle, for temporary work	500	.18
50717.	Keyless receptacle, for concealed or moulding work	250	.25
50724.	Fielding receptacle, plain for moulding work	250	.25
50726.	Fielding receptacle for shade holder	250	.30
36519.	Edison Fielding receptacle, for shade holder for 3-wire moulding,	250	.35
23210.	Edison Fielding cleat receptacle	250	.25
23209.	Edison Fielding cleat receptacle, S. H.	250	.30
50727.	Edison Fielding receptacle, multiple circuit,	250	.30
33581.	Fielding receptacle, show window	250	.30
33582.	Fielding receptacle, show window, 60° angle	250	.35
32959.	Fielding border light receptacle	250	.35
34353.	Horizontal moulding show window Fielding angle receptacle,	250	.35
50744.	Keyless receptacle, porcelain shell	100	.30
50782.	Sign receptacle	100	.25
50899.	,, ,,	100	.25
50789.	Keyless receptacle, porcelain ring and base	100	.40
34152.	Moulding receptacle for shade holder	250	.30
28795.	Keyless porcelain receptacle	250	.15
30599.	Porcelain sign receptacle	500	.20
1700.	Porcelain sign receptacle	500	.14
37695.	Porcelain keyless socket for decorative trimming	250	.25



No. 38394.



No. 9404.



No. 9405.



No. 38135.



No. 50783.



No. 9406.



No. 50784.



No. 50732.



No. 50729.

SOCKETS and Receptacles (Continued).

Edison Rosette Receptacles.

With P. K. Bases.

No.		Std. Pkg.	Price Each.
38394.	Keyless receptacle, concealed, for shade holder.....	50	$ .50
38395.	Keyless receptacle, cleat, for shade holder.....	50	.50
38396.	Keyless receptacle, moulding, for shade holder.....	50	.50

With K. W. Rosette Bases.

No.			
9404.	Keyless receptacle, concealed.....	50	$ .40
9434.	Keyless receptacle, cleat.....	50	.40
9435.	Keyless receptacle, moulding.....	50	.40
29173.	Keyless receptacle, combination.....	50	.40
9405.	Keyless receptacle, concealed, for shade holder.....	50	.50
9436.	Keyless receptacle, cleat, for shade holder.....	50	.50
9437.	Keyless receptacle, moulding, for shade holder.....	50	.50
29174.	Keyless receptacle, combination.....	50	.50
38135.	Keyless receptacle, concealed, for shade holder.....	50	.50
38136.	Keyless receptacle, cleat, for shade holder.....	50	.50
38137.	Keyless receptacle, moulding, for shade holder.....	50	.50
38138.	Keyless receptacle, combination, for shade holder.....	50	.50
9406.	Keyless angle receptacle, concealed,	50	.80
9438.	Keyless angle receptacle, cleat....	50	.80
9439.	Keyless angle receptacle, moulding,	50	.80
29175.	Keyless angle receptacle, combination.....	50	.80

Edison Fusible Receptacles.

No.		Lined.	
50783.	Key receptacle, with D. P. fuse.....	250	$ .60
50784.	Keyless receptacle, with D. P. fuse..	250	.55

With K. W. Rosette Bases.

No.		Fibre Lined.	
50729.	Key receptacle, concealed.....	100	$ .60
50730.	Key receptacle, cleat.	100	.60
50731.	Key receptacle, moulding.....	100	.60

SOCKETS and Receptacles.



No. 38398.

Edison Fusible Receptacles (Continued).

With K. W. Rosette Bases.

No.	Fibre Lined.	Std. Pkg.	Price Each.
28727.	Key receptacle, combination	100	$ .60
50732.	Keyless receptacle, concealed	50	.55
50733.	,, ,, cleat	50	.55
50734.	,, ,, moulding	50	.55
28732.	,, ,, combination	50	.55
38398.	Key receptacle, concealed, removable ring	100	.60
38399.	,, ,, cleat, ,, ,,	100	.60
38600.	,, ,, moulding, ,, ,,	100	.60
38601.	,, ,, combination, ,, ,,	100	.60
38602.	Keyless receptacle, concealed, removable ring	50	.55
38603.	,, ,, cleat, ,, ,,	50	.55
38604.	,, ,, moulding, ,, ,,	50	.55
38605.	,, ,, combination, ,, ,,	50	.50
35009.	Pull receptacles, concealed	20	1.10
35010.	,, ,, cleat	20	1.10
35011.	,, ,, moulding	20	1.10
35018.	,, ,, combination	20	1.10
28723.	Key receptacle, concealed, with 2¼-in. shade holder	100	.66
28724.	,, ,, cleat, ,, 2¼ ,, ,, ,,	100	.66
28725.	,, ,, moulding, ,, 2¼ ,, ,, ,,	100	.66
28726.	,, ,, combination, ,, 2¼ ,, ,, ,,	100	.66
29408.	,, ,, concealed, ,, 3¼ ,, ,, ,,	100	.74
29409.	,, ,, cleat, ,, 3¼ ,, ,, ,,	100	.74
29410.	,, ,, moulding, ,, 3¼ ,, ,, ,,	100	.74
29482.	,, ,, combination, ,, 3¼ ,, ,, ,,	100	.74
28728.	Keyless receptacle, concealed, ,, 2¼ ,, ,, ,,	50	.61
28729.	,, ,, cleat, ,, 2¼ ,, ,, ,,	50	.61
28730.	,, ,, moulding, ,, 2¼ ,, ,, ,,	50	.61
28731.	,, ,, combination,, 2¼ ,, ,, ,,	50	.61
29411.	,, ,, concealed, ,, 3¼ ,, ,, ,,	50	.69
29412.	,, ,, cleat, ,, 3¼ ,, ,, ,,	50	.69
29413.	,, ,, moulding, ,, 3¼ ,, ,, ,,	50	.69
29483.	,, ,, combination,, 3¼ ,, ,, ,,	50	.69



No. 28723.



No. 28728.

With Thomas Rosette Bases.

24990.	Key receptacle, concealed	100	$ .60
24991.	,, ,, cleat	100	.60
24992.	,, ,, moulding	100	.60
24993.	Keyless receptacle, concealed	50	.55
24994.	,, ,, cleat	50	.55
24995.	,, ,, moulding	50	.55
28733.	Key receptacle, concealed, with 2¼-in. shade holder	100	.66
28734.	,, ,, cleat, ,, 2¼ ,, ,, ,,	100	.66
28735.	,, ,, moulding, ,, 2¼ ,, ,, ,,	100	.66
29414.	,, ,, concealed, ,, 3¼ ,, ,, ,,	100	.74
29415.	,, ,, cleat, ,, 3¼ ,, ,, ,,	100	.74
29416.	,, ,, moulding, ,, 3¼ ,, ,, ,,	100	.74
28736.	Keyless receptacle, concealed, ,, 2¼ ,, ,, ,,	50	.61
28737.	,, ,, cleat, ,, 2¼ ,, ,, ,,	50	.61
28738.	,, ,, moulding, ,, 2¼ ,, ,, ,,	50	.61
29417.	,, ,, concealed, ,, 3¼ ,, ,, ,,	50	.69
29418.	,, ,, cleat, ,, 3¼ ,, ,, ,,	50	.69
29419.	,, ,, moulding, ,, 3¼ ,, ,, ,,	50	.69



No. 24990.



No. 38606.



No. 9401.



No. 50752.



No. 9448.



No. 50997.



No. 9366.



No. 60666.

SOCKETS and Receptacles.

Edison Fusible Receptacles (Continued).

With P. K. Rosette Bases.

No.		Std. Pkg.	Price Each.
34193.	Key receptacle, concealed	100	$ .60
34194.	,, ,, cleat	100	.60
34195.	,, ,, moulding	100	.60
34196.	Keyless receptacle, concealed	50	.55
34197.	,, ,, cleat	50	.55
34198.	,, ,, moulding	50	.55
38606.	Key receptacle, concealed, removable ring	100	.60
38607.	Key receptacle, cleat, removable ring	100	.60
38608.	Key receptacle, moulding, removable ring	100	.60
38610.	Keyless receptacle, concealed, removable ring	50	.55
38611	Keyless receptacle, cleat, removable ring	50	.55
38612.	Keyless receptacle, moulding, removable ring	50	.55
38672.	Key receptacle, concealed, with 2¼-in. shade holder	100	.66
38673.	Key receptacle, cleat, with 2¼-in. shade holder	100	.66
38674.	Key receptacle, moulding, with 2¼-in. shade holder	100	.66
38680.	Key receptacle, concealed, with 3¼-in. shade holder	100	.74
38681.	Key receptacle, cleat, with 3¼-in. shade holder	100	.74
38682.	Key receptacle, moulding, with 3¼-in. shade holder	100	.74
38676.	Keyless receptacle, concealed, with 2¼-in. shade holder	50	.61
38677.	Keyless receptacle, cleat, with 2¼-in. shade holder	50	.61
38678.	Keyless receptacle, moulding, with 2¼-in. shade holder	50	.61
38684.	Keyless receptacle, concealed, with 3¼-in. shade holder	50	.69
38685.	Keyless receptacle, cleat, with 3¼-in. shade holder	50	.69
38686.	Keyless receptacle, moulding, with 3¼-in. shade holder	50	.69

Porcelain.

No.			
9401.	Keyless receptacle, with S. P. fuse	100	$ .40
9447.	Keyless receptacle, with D. P. fuse for shade holder	100	.45
50752.	Keyless receptacle, with D. P. fuse, cleat or concealed	100	.45

Edison Weatherproof Sockets and Receptacles.

The standard length of wire on weatherproof sockets and receptacles is not to exceed 8 inches. Extra wire, 3 cents per foot, net, per socket or receptacle.

No.		Std. Pkg.	Price Each.
9366.	Porcelain	250	$ .25
50997.	,,	250	.50
38687.	,,	250	.30
60666.	Moulded material	250	.60
42686.	,, ,, with centre spring contact	250	.65
50788.	Hard rubber	250	1.00
42690.	,, ,, with centre spring contact	250	1.50
9448.	Bracket socket, ⅛-in. pipe	100	.60
9496.	,, ,, ⅜ ,, ,,	100	.60



No. 9407.



No. 9408.



No. 9411.



No. 25706.



No. 25707.



No. 22754.



No. 22755.



No. 28794.



No. 40449.



No. 50702.



No. 32440.

SOCKETS and Receptacles.

Edison Weatherproof Sockets and Receptacles (Continued).

No.		Std. Pkg.	Price Each.
9407.	Weatherproof porcelain receptacle,	100	$ .40
9408.	Weatherproof porcelain receptacle,	100	.40
9411.	Weatherproof porcelain receptacle,	100	.35
25706.	Street hood receptacle, cleat	100	.27
25707.	Street hood receptacle, B. W.	100	44
22754.	Ed. W. P. sockets, D. G. petticoat.	200	.35
22755.	Ed. W. P. sockets, D. G. petticoat, ⅛-in. cap	100	60
22756.	Ed. W. P. sockets, D. G. petticoat, ⅜-in. cap	100	.60
28794.	Keyless weatherproof receptacle,	250	.20
40449.	Porcelain weatherproof keyless receptacle, with concealed terminals	250	.25

For all outdoor work, in parks and amusement resorts, this new receptacle is unsurpassed. The base can be installed and connected with ease and rapidity; the wires are held the required distance of 2½ in. apart and 1 in. from the surface wired over. Inspection can be readily made and every connection seen.

Edison Sockets for 500-Volt Circuits.

No.		Std. Pkg.	Price Each.
50701.	Keyless socket, with aluminum shell for ½-in. pipe	50	$ .70
25709.	Keyless socket, with aluminum shell for ⅜-in. pipe	50	.70
50702.	Keyless socket, with brass shell for ½-in. pipe	50	.70
25710.	Keyless socket, with brass shell for ⅜-in. pipe	50	.70
32440.	Keyless socket, with aluminum shell for ½-in. pipe	50	.50
32441.	Keyless socket, with aluminum shell for ⅜-in. pipe	50	.50
32442.	Keyless socket, with brass shell for ½-in. pipe	50	.50
32443.	Keyless socket, with brass shell for ⅜-in. pipe	50	.50



No. 1140.



No. 1149.



No. 1143.



No. 1144.



No. 1147.



No. 50966.



No. 50965.



No. 22654.



No. 9449.



No. 22287.



No. A-227.



No. C-227.



No. 117.



No. D-117.

SOCKETS and Receptacles (Continued).

Edison Moulded Mica Sockets.

These sockets are waterproof on top. Furnished with stranded rubber-covered braided leads. For use in paper mills, breweries, laundries, tunnels, parks, etc.

Not recommended for use in temperatures over 125 degrees F., or for use on voltages over 125 volts.

No.		Each.
1140.	Mica socket, 6-in. leads, Weight, 2½ oz.	$ .36
1149.	Mica socket with groove for shade holder..... 6-in. leads; wt., 2½ oz.	.36
1143.	Mica bracket socket, ⅛ in., wires inside..... 6-in. leads; wt., 2½ oz.	.60
1144.	Mica bracket socket, ⅛ in., wires outside..... 6 in. leads; wt., 3 oz.	60
1150.	Mica bracket socket, ⅜ in., wires inside..... 6 in. leads; wt., 2½ oz.	60
1153.	Mica bracket socket, ⅜ in., wires outside..... 6-in. leads; wt., 3 oz.	60
1147.	Mica wall socket; wt., 4 oz.....	.60
	Mica sockets with extra length leads, add approx., per inch,	02

Marine Sockets and Receptacles.

Edison base, with brass shell, finished in dull black. Spiral spring contacts.

No.		Each.
50966.	Key socket, black.....	$ .50
50965.	Keyless socket, black..	.45
9449.	N. W. T. key receptacle, black shell, with D. P. fuse.....	.60
22654.	N. W. T. keyless receptacle, black shell, with D. P. fuse.....	.55
22287.	N. W. T. porcelain base,	.35
50775.	N. W. T. keyless, with removable ring, porcelain base, black shell.....	.35

Norbitt Sockets and Receptacles (see Rosettes).

No.		Per 100.
A-227.	Permanent Edison moulding receptacle, porcelain.....	$25.00
C-227.	Permanent Edison conduit receptacle, porcelain.....	28 00
117.	Temporary Edison decorative socket, porcelain.....	30.00
D-117.	Weatherproof socket, with lead wires.....	26.00

SOCKETS and Receptacles (Continued),

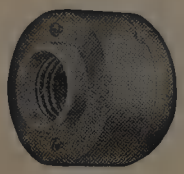


No. 1000. No. 1010.

Newcode Receptacles.

The best receptacles for amusement parks. They go everywhere that the No. 9171 formerly did, and in lots of other places, too. Have three times the distance between centre contact and copper shell of any other receptacle. No soldering, taping or painting is necessary.

		Std. Pkg.	Each.
No. 1000.	Newcode receptacle	250	$ .28
,, 1005.	Ditto to take shade holder	250	.33



No. 1020.

Newcode Weatherproof Socket.

For festoon work and decorative work these sockets have no equal. It requires no cleats as spreaders between sockets and permits of suspension from guy wires. No soldering of "leading in" wires.

		Std. Pkg.	Each
No. 1010.	Newcode weatherproof socket	250	$ .35
,, 1015.	Ditto to take shade holder	250	.40

Newcode No. 1020.

For metal ceiling work, sign work, etc., it is the most solid, substantial, flush-setting receptacle on the market. All contacts are porcelain housed.

		Std. Pkg.	Each.
No. 1020.	New code receptacle	250	$ .32



No. 25711. No. 25712.

Street Series Incandescent Sockets.

No. 25708. Porcelain series socket and receptacle, complete, including iron yoke, No. 25714, for use with large Edison screw base lamps, each, $2.00

No. 25717. Porcelain series socket and receptacle, complete, including iron yoke, No. 19043, for use with large Edison screw base lamps, each, 2.00

No. 29170. Porcelain socket and receptacle, complete, with iron yoke, No. 29172, for standard Edison screw base lamps ..... each, 1.50

No. 25711. Porcelain series socket only, for Nos. 25708, 25717 ..... each, 1.00

No. 25720. Porcelain series socket only, for No. 29170, each, .50

No. 25712. Porcelain receptacle, with clips and iron yoke, No. 25714 ..... each, 1.00

No. 25718. Porcelain receptacle, with clips and iron yoke, No. 19043 ..... each, 1.00

No. 29171. Porcelain receptacle, with clips and iron yoke, No. 29172 ..... each, 1.00

No. 25713. Porcelain receptacle, with clips only, each, .65

No. 25714. Iron yoke ($\frac{7}{8}$ in. to 18 thread), with two screws, No. 10252 ..... each, .35

No. 29172. Iron yoke ($\frac{7}{8}$ in. to 18 thread), with two screws, No. 10252 ..... each, .35

No. 19043. Iron yoke ($\frac{3}{8}$ in. to 18 pipe thread), with two screws, No. 10252 ..... each, .35



No. 25708.



No.4504. No. 4505.

Brass Shell Series Sockets for T. H. Lamp.

No. 4504. Series socket for arc circuits up to 9.6 amperes ..... each, $2.00

No. 4505. Series socket for circuits of 7.5 amperes or less ..... each, 1.50



No. 1.



No. 2.



No. 3.



No. 4.



No. 5.



No. 6.



No. 7 Marine.



No. 7 Fusible.



No. 8. No. 9.



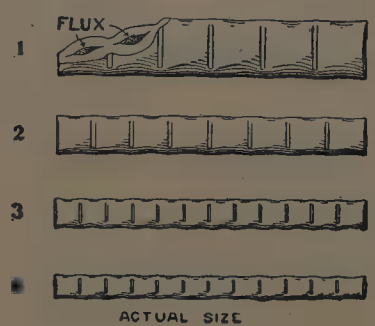
No. 156.



Bar Solder.



Wire Solder.



SOCKETS and Receptacles (Continued).

Miniature and Candelabra Sockets and Receptacles.

		Std. Pkg.	Per 100.
No. 9444 (No. 1).	Round candelabra receptacle, Specially designed for fixture use. Screw at lower end is supplied, either male or female as desired. Made of porcelain.	200	$12 00
No. 9446 (No. 2).	Flat base candelabra receptacle..... Made of porcelain, with two screw holes in base.	200	6.00
No. 50776 (No. 3).	Candelabra socket..... Made of brass with porcelain insulating parts.	200	23.50
No. 9445 (No. 4).	Flat base miniature receptacle..... Made of porcelain, with two screw holes in base.	200	6.00
No. 50777 (No. 5).	Miniature socket..... Made of brass with porcelain insulating parts.	200	23 25
No. 50778 (No. 6).	Rectangular base candelabra receptacle..... A special receptacle for sign work can be supplied with litharge lining for outdoor work if so ordered.	200	10 00
No. 50790 (No. 7).	Marine candelabra receptacle, Used for binnacle lamps and other marine work. Similar to No. 6, but with spring contact.	200	15.00
No. 50779 (No. 7).	Fusible candelabra receptacle, Removable porcelain cover, covering double pole fuses.	200	22.00
No. 30857 (No. 8).	Miniature pendant receptacle, A porcelain pendant socket with 12 inches of cord.	200	12.00
No. 30856 (No. 9).	Candelabra pendant receptacle..... A porcelain pendant socket with 12 inches of cord.	200	13.50
No. 156.	Miniature hard rubber socket, With rubber-covered stranded lead wires.		15.00

SOFT Rubber Tube (see Rubber).

SOLDER.

Bar Solder.

No. S-2180. Bar solder, half and half..... per lb., $ .42½
,, S-2181. ,, ,, guaranteed half and half, ,, .54

Wire Solder.

No. S-2182. Especially adapted for electrician's use; sold by the pound as desired or on wooden reels.....per lb., $ .40

Kester Flux Solder.

A specially prepared wire solder having a resinous flux embodied in the wire itself, the wire being indented to prevent its dropping out.

No. 1. Heavy self-fluxing solder.....per lb., $ .70
,, 2. Medium ,, ,, ... ,, .72
,, 3. Light ,, ,, ... ,, .74
,, 4. Extra light ,, ,, ... ,, .76

SOLDER Pots (see P).
SOLDERING Coppers and Irons (see Coppers, soldering, and Irons, soldering).
SOLDERING Paste (see Paste).
SOLDERING Salts (see Salts).
SOLDERING Sticks (see Sticks).
SOLDERING Torches (see T).
SOUNDERS, Telegraph (see Instruments, telegraph).
SPAN Insulator (see I).
SPARE Lamp Brackets (see B).
SPARK Plug (see P).
SPARS, Gas (see Attachments).
SPEAKING Tube (see T).
SPHERES (see Shades).
SPIKES.

Railroad Spikes.

Size Measured under Head.	Average No. per Keg of 200 Lbs.	Ties Two Feet between Centres, Four Spikes per Tie, makes per Mile,	Rail Used. Weight per Yard.
$5\frac{1}{2} \times \frac{9}{16}$	360	5870 lbs. = $29\frac{1}{3}$ kegs	45 and up
$5 \times \frac{9}{16}$	400	5170 ,, = 26 ,,	40 to 56
$5 \times \frac{1}{2}$	450	4660 ,, = $23\frac{1}{3}$,,	35 ,, 40
$4\frac{1}{2} \times \frac{1}{2}$	530	3960 ,, = 20 ,,	28 ,, 35
$4 \times \frac{1}{2}$	600	3520 ,, = $17\frac{2}{3}$,,	24 ,, 35
$4\frac{1}{2} \times \frac{7}{16}$	680	3110 ,, = $15\frac{1}{2}$,,	20 ,, 30
$4 \times \frac{7}{16}$	720	2940 ,, = $14\frac{3}{4}$,,	
$3\frac{1}{2} \times \frac{7}{16}$	900	2350 ,, = $11\frac{3}{4}$,,	16 ,, 25
$4 \times \frac{3}{8}$	1000	2090 ,, = $10\frac{1}{2}$,,	
$3\frac{1}{2} \times \frac{3}{8}$	1190	1780 ,, = 9 ,,	16 ,, 20
$3 \times \frac{3}{8}$	1240	1710 ,, = $8\frac{1}{2}$,,	
$2\frac{1}{2} \times \frac{3}{8}$	1342	1575 ,, = $7\frac{7}{8}$,,	12 ,, 16

Prices per pound on application.



R. R. Spike.

SPLICERS, see following headings :
Splicers, Feed Wire.
,, Trolley Wire.

SPLICERS, Feed Wire.

Feeder Wire Splicer.

For solid and stranded wires. Made in two parts, with nuts threaded over the ends and a hole in one of the parts for running in solder.

Where this device is used for solid wires the use of a special heading tool is recommended, as the joint will then be stronger.

No.			Wire.	Each.
1200.	Splicer for	No. 0	B. & S. stranded,	.90
2099.	,, ,,	,, 0	,, solid,	.80
1201.	,, ,,	,, 2–0	,, stranded,	1.01
2100.	,, ,,	,, 2–0	,, solid,	.78
1202.	,, ,,	,, 3–0	,, stranded	1.05
2101.	,, ,,	,, 3–0	,, solid,	.92
1203.	,, ,,	,, 4–0	,, stranded,	1.04
2102.	,, ,,	,, 4–0	,, solid,	.90
2576.	,, ,,	250000	C. M. stranded,	1.07
2103.	,, ,,	250000	,, solid,	.94
2577.	,, ,,	300000	,, stranded,	1.21
2104.	,, ,,	300000	,, solid,	1.06
2578.	,, ,,	350000	,, stranded,	1.19
2579.	,, ,,	400000	,, ,,	1.16
2580.	,, ,,	500000	,, ,,	1.44
2582.	,, ,,	600000	,, ,,	1.50
2584.	,, ,,	700000	,, ,,	1.46
2585.	,, ,,	750000	,, ,,	1.80
4238.	,, ,,	800000	,, ,,	1.75
4239.	,, ,,	900000	,, ,,	1.72
4240.	,, ,,	1000000	,, ,,	1.69
2111.	Heading tool for solid wire			2.10



Feed Wire Splicer.

In ordering splicers, if stranded wire please state number of strands.

SPLICERS, Trolley Wire (see Ears).

Brass Splicing Sleeves.

The standard splicing sleeves are made from solid drawn brass rod drilled from each end toward the centre; the holes are milled out and the completed sleeve is then tinned.



No. 42414.

No.	Sleeve.		Per 100.
42414.	No.	0 — 10 x ⅝ in. for round wire	$75.00
16996.	,,	0 — 15 x ⅝ ,, ,, ,, ,,	100.00
42415.	,,	00 — 10 x ⅝ ,, ,, ,, ,,	75.00
17597.	,,	00 — 16 x ⅝ ,, ,, ,, ,,	115.00
42416.	,,	000 — 11 x ¾ ,, ,, ,, ,, (or for 00 grooved)	140.00
19486.	,,	000 — 18 x ¾ in. for round wire (or for 00 grooved)	200.00
42417.	,,	0000 — 12 x ⅞ in. for round wire (or for 000 grooved)	165.00
19362.	,,	0000 — 20 x ⅞ in. for round wire (or for 000 grooved)	275.00
42418.	,,	0000 — 12 x ⅞ in. for round wire	165.00
19465.	,,	0000 — 20 x ⅞ ,, ,, ,, ,,	275.00

Copper Splicing Sleeves.

Made from pure hard drawn copper rod, otherwise same as above.



No. 37887.

No.	Sleeve.		Per 100.
37887.	No.	0 — 15 x ⅝ in. for round wire,	$150.00
37888.	,,	00 — 16 x ⅝ ,, ,, ,, ,,	150.00
37889.	,,	000 — 18 x ¾ ,, ,, ,, ,, (or for 00 grooved)	225.00
37890.	,,	0000 — 20 x ⅞ in. for round wire (or for 000 grooved)	300.00
37891.	,,	0000 — 20 x ⅞ in. for 0000 grooved wire	300.00

Bronze Splicing Sleeves.

Similar to the standard brass sleeves, but of special bronze, harder, more durable, and better adapted to stand wear of congested traffic.

No.	Sleeve.		Per 100.
19401.	No.	0 — 15 x ⅝ in. for round wire,	$160.00
34128.	,,	00 — 16 x ⅝ ,, ,, ,, ,,	160.00
34129.	,,	000 — 18 x ¾ ,, ,, ,, ,, (or 00 grooved)	250.00
34130.	,,	0000 — 20 x ⅞ in. for round wire (or 000 grooved)	350.00
39711.	,,	0000 — 20 x ⅞ in. for 0000 grooved wire	350.00

K.-I. Splicers.



K.-I. Splicer.

No.		Inch.	Wt. Oz.	Each.
No.	0 round wire (B. & S.) splicer,	10	11½	$1.00
,,	0 ,, ,, ,, ,,	15	17	1.10
,,	00 ,, ,, ,, ,,	10	14	1.00
,,	00 ,, ,, ,, ,,	15	21	1.10
,,	000 ,, ,, ,, ,,	15	21	1.10
,,	0000 ,, ,, ,, ,,	15	24	1.20

A grooved wire calls for next larger splicer.
Extra wedges.....per 100, $8.00

Wood's Trolley Wire Splicers.

Made of seamless-drawn brass tube in two pieces of equal length, threaded to take brass centre piece. The steel caps are tapered and slotted, also threaded on inside to get a good hold on the wire.



Wood's Splicer.

No. 3480.	Wood's splicer for No.	0	...each, $ .80
,, 3481.	,, ,, ,, ,,	00	... ,, .85
,, 3482.	,, ,, ,, ,,	000	... ,, 1.20
,, 3483.	,, ,, ,, ,,	0000	... ,, 1.40



Sponges.

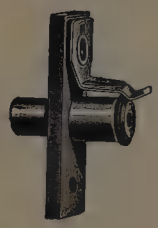
SPLICING Clamp (see C).
SPLICING Compound (see C).
SPLICING Ear (see E).
SPLICING Tape (see Tapes).
SPLIT Insulator (see Insulators, porcelain).
SPONGE Electrode (see Coils, medical).
SPONGES.

Car Sponges.

No. S-2185. Selected car sponges ..... per lb., $7.00

SPOOL, Cord (see Adjusters).
SPOONS (see Shovels).
SPOONS, Chafing Dish (see Dish).
SPOT Light (see Lamps, arc).
SPRAY Urns (see Urns).
SPREADER (see Arms, cross).
SPREADER Hook (see H).
SPRINGS, see following headings:

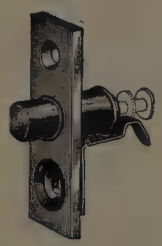
Springs, door and window.
" harp contact.



No. 34.



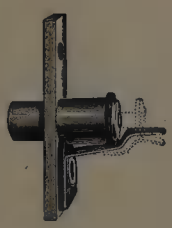
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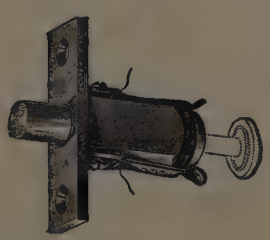
No. 38.



No. 35.



No. 39.



No. 113.



No. 120.

SPRINGS, Door and Window (see Attachments).

Open Circuit Door Spring.

The contacts scrape themselves clean, ensuring a positive connection. Size of front plate, 2 x ⅝ inches.

No. 34. Door spring ..... per 100, $17.50

Large Open Circuit Door Spring.

Same style as No. 34, but extra heavy, strong, larger.

No. 36. Door spring ..... each, $ .30

Small Open Circuit Door Spring.

Same style as No. 34, but smaller, for use on thin doors, single swing transoms, etc.

No. 35. Door spring ..... per 100, $17.50

Make and Break Door Spring.

For use on store doors, etc. Contact is made as door opens or shuts, but not while it is open or shut. Size of front plate, 2 x ⅝ inches.

No. 38. Door spring ..... per 100, $17.50

Closed Circuit Door Spring.

When door is closed contact is established. When open, contact is broken. Phosphor bronze springs, scraping contacts. Size of front plate, 2 x ⅝ inches.

No. 39. Door spring ..... per 100, $17.50

Insulated Door Spring.

Both contacts insulated. For use on metal door frames.

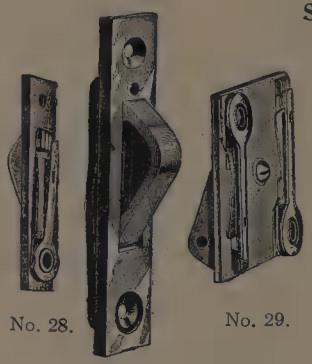
No. 113. Door spring ..... each, $2.00

Swinging Door Spring.

For use on swinging doors or windows. The contact is made by passing over a small roller, but slightly raised from the plate. Scraping contact and no unnecessary friction to retard action of door.

No. 120. Swinging door spring ..... each, $1.50

SPRINGS, Door and Window (Continued).



No. 28. No. 29.

No. 30.

Single Window Spring.

Good rubbing contact, phosphor bronze springs. Small and easily applied. Size of plate, $2\frac{3}{8}$ x $1\frac{1}{2}$ inches.

No. 28. Window spring.....per 100, $17.50

Heavy Single Window Spring.

Heavy nosing and strong springs, with rubbing contact. Can be arranged for open or closed circuit. Size of plate, $3\frac{3}{8}$ x $\frac{5}{8}$ inches.

No. 30. Heavy window spring.....each, $ .20

Double Window Spring.

Phosphor bronze springs with good rubbing contact. For right or left hand. Size of plate, $1\frac{3}{4}$ x $1\frac{1}{2}$ inches.

No. 29. Double window spring.....each, $ .25



No. 143.

Insulated Window Spring.

For metal window or transom frames. Both contacts insulated.

No. 143. Insulated window spring.....each, $1.50

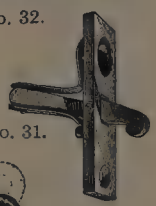


No. 32.

Transom Spring.

For use on transoms, French, or pivot windows, etc.

No. 32. Transom spring.....each, $ .60

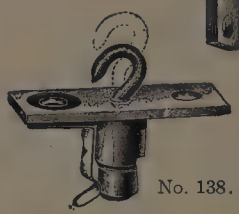


No. 31.

Perpendicular Shade Spring.

To be placed on under side of window sill. The cord is attached to arms, so that slightest interference with shade will give alarm.

No. 31. Perpendicular shade spring.....each, $ .50



No. 138.

Horizontal Shade Spring.

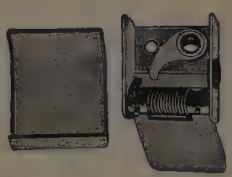
To be placed on top of window sill. The cord is attached to hook, so that any interference gives alarm.

No. 138. Horizontal shade spring.....each, $ .50

Door Trip.

For use on store doors, etc., to ring bell when door is opened or closed. No cutting is necessary. It is screwed to the door frame, the lip between the door and the frame. No contact when door is open or closed.

No. 47. Door trip.....each, $ .60



No. 47.

Burglar Alarm Attachments.

For protecting windows, skylights, blinds, etc. A wire attached to the ring is drawn so as to break the contact. Further drawing of the wire or the breaking of it will establish a contact and give the alarm.

May also be used as a drawer or door spring when a surface connection is desired.

No. 45. Attachment.....per 100, $37.50
„ 46. „ ..... „ 37.50



No. 45. No. 46.

Closed Circuit Safe Spring.

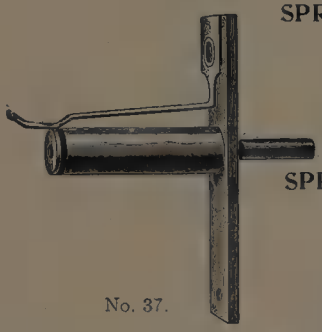
Fits in $\frac{3}{8}$-inch hole, the spring clips on sides holding it in place avoiding use of screws.

One wire is placed between the clips and the barrel, the other is attached to the plate.

No. 40. Safe spring with plate.....each, $ .20
Extra contact plates ..... „ .05



No. 40.



No. 37.



Trolley Harp Spring.



Contact Washer.



Springs.



E. E Rd. No. 10.



No. 1. No. 3.



No. 5. No. 7.



Insulated Staple. Speaking Tube Staple.

SPRINGS, Door and Window (Continued).

Shutter Spring.

For use with shutters, or where extra long break is desired. Phosphor bronze springs. Scraping contacts.

No. 37. Shutter spring ..... each, $ .40

SPRINGS, Harp Contact.

Trolley Harp Springs and Washers (see Harps).

3919.	Standard malleable harp contact spring	per 100,	$5.00
3920.	,, ,, ,, ,, washer	,,	1.30
26072.	Form 10 harp contact spring	,,	8.00
26073.	,, 10 ,, ,, washer	,,	2.00
30601.	Forms 12 and 21 harps contact spring	,,	8.00
30602.	,, 12 ,, 21 ,, ,, washer	,,	2.00

SPRINGS.

We are prepared to furnish prices on application on all styles of springs for trolley bases, trucks, etc. Send a sample spring or refer to manufacturer's catalogue number if no blue print is available.

SPRING Scraper (see Scraper).

SPURS (see Climbers).

STAGE Receptacles (see R).

STALACTITES (see Shades, glass).

STANDS (see Irons).

STANDARDS (see Newels, Brackets, Lamps, etc.).

STAPLE Driver (see D).

STAPLES.

Electrician's Staples.

Made of flat wire, heavily turned. Sizes given are inside measurements.

No. E. Round, $\frac{1}{2}$ in. long, $\frac{1}{8}$ in. wide, round head (in 1-lb. packages) ..... per lb., $ .20

No. E. $\frac{1}{2}$ in. long, $\frac{3}{16}$ in. wide, square head (in 1-lb. packages) ..... per lb., .20

No. 10. $\frac{1}{2}$ in. long, $\frac{1}{4}$ in. wide, square head (in 4-oz. packages) per lb., .20

Blake Insulated Staples.

Designed for use on all low voltage circuits of interior wiring. Standard square shouldered staples having good driving qualities with fibre insulation, which cannot come off in driving. Put up 100 in a package.

No. 1.	$\frac{1}{2}$ inch, for hard wood	per pkg.,	$ .15
,, 3.	$\frac{3}{4}$,, ,, general work	,,	.15
,, 5.	$\frac{5}{8}$,, ,, hard wood	,,	.17
,, 7.	$\frac{7}{8}$,, ,, general work	,,	.17

Cross Insulated Saddle Staples.

No. 5.	For wire .05-inch diameter	per 1,000,	$ .50
,, 10.	,, ,, .10 ,, ,, ...	,,	.60
,, 15.	,, ,, .15 ,, ,, ...	,,	.80
,, 25.	,, ,, .25 ,, ,, ...	,,	1.70
,, 40.	,, ,, .40 ,, ,, ...	,,	4.50
,, 50.	,, ,, .50 ,, ,, ...	,,	5.00
,, 100.	,, ,, 1.00 ,, ,, ...	,,	7.00

Speaking Tube Staples.

Bronze speaking tube staples for 1-inch tube.

No. S-2190. Speaking tube staples ..... per lb., $ .40



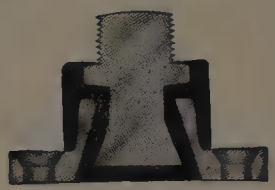
No. 81.



No. 90.



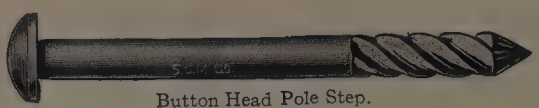
Shawmut Fixture Stud.



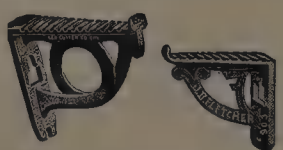
T. & B. Insulated Stud.



Fetter Drive Pole Step.



Button Head Pole Step.



Cutter's Ornamental "Pole Step."

Fletcher's Pole Step.



Cutter's Removable Pole Step.



Clamp Pole Step.

STAR Bridle Ring (see R).
STAR Expansion Bolts (see B).
STARTING Boxes (see Rheostats).
STEMS (see Pipe, brass).

Bossert Fixture Stems.

For use in conduit and outlet boxes (see B).

No. 81. Fixture stem, ½-inch pipe.....per 100, $6.50
,, 81A. ,, ,, ⅜ ,, ,, ... ,, 6.50
Stove bolts furnished with above.

Bossert Gas Elbows.

No. 90. Gas elbow, ½ in. x ½ in.....per 100, $12.00
,, 91. ,, ,, ½ ,, x ⅜ ,, ... ,, 12.00
,, 92. ,, ,, ⅜ ,, x ⅜ ,, ... ,, 12.00

Shawmut Fixture Stud.

The stud is inserted in the centre hole of box and has a flat shoulder to prevent turning. It is fastened by a lock nut on inside of box.

No. H-2195 ⅜-inch fixture stud, complete.....per 100, $10.00

T. & B. Insulated Fixture Stud.

Can be attached to any standard outlet box. Height, 1⅜ inches. Takes the place of and takes up less space than an insulating joint and fixture stud.

	Std. Pkg.	Per 100
No. S-2195. ⅜-inch insulated stud.....	100.....	$50.00

STEPS, Car (see Trimmings).
STEPS, Pole.

Fetter Drive Pole Steps.

	Approx. Wt. per 100.	Per 100 Plain	Per 100 Galv'd.
No. S-2198. ⅝ x 8-inch pole steps, plain.....	76 lbs.....	$4.25	$5.50
,, S-2199. ⅝ x 9 ,, ,, ,, ,, ...	82 ,, ...	4.75	6.00
,, S-2200. ⅝ x 10 ,, ,, ,, ,, ...	88 ,, ...	5.10	6.50

Button Head Pole Steps.

With rolled thread. The latest and best style of step.

	Approx. Wt. per 100.	Per 100. Plain	Per 100. Galv'd.
No. S-2205. ⅝ x 8½-in. steps,	100..	$5.25	$6.50
,, S-2206. ⅝ x 9 ,, ,,	105..	5.75	7.00
,, S-2207. ⅝ x 10 ,, ,,	115..	6.00	7.50

Cutter's Ornamental Pole Step.

Fits either round or octagonal poles and looks much neater than the ordinary step. Is easily fastened by using a single lag screw and a nail.

No. H-2210. Cutter's ornamental pole step.....net, each, $ .08

Fletcher's Pole Step.

Similar to Cutter's as regards attaching to pole, but of slightly different design.

No. 903. Fletcher's "fancy" pole step.....each, $ .09

Cutter's Removable Pole Step.

Are much more easily carried than a ladder, 14 oz. to the pair and can be carried in the pocket. The socket is hooded to keep out moisture. Made of malleable iron.

No. S-2210. Removable pole step.....net, each, $ .12½
,, S-2211. Sockets for same..... ,, ,, .07½

Pole Steps for Iron Poles.

No. 1276. Pole step to fit 3-inch tubing .....each, $ .48
,, 1277. ,, ,, ,, 4 ,, ,, ... ,, .48
,, 1278. ,, ,, ,, 4½ ,, ,, ... ,, .48
,, 1279. ,, ,, ,, 5 ,, ,, ... ,, .51
,, 1280. ,, ,, ,, 6 ,, ,, ... ,, .54
,, 1281. ,, ,, ,, 7 ,, ,, ... ,, .60
,, 1282. ,, ,, ,, 8 ,, ,, ... ,, .66



No. 1435.



No. 1433.



Sign Stick.





Solderene Stick.



Switch Stick.



Bit Stock.

STERILIZERS.

Instrument Sterilizers.

For hospital work. Made of heavy copper, double tin lined inside, nickel plated outside, with heavy perforated nickel plated copper trays to furnish a suitable support for the instruments when immersed. Removable coil heaters under tray.

Sterilizers listed below will bring water to the boiling point when vessels contain a depth of 3 inches in twenty-five minutes, starting with everything cold, and water at average hydrant temperature.

Heaters can be supplied to effect the same results in ten minutes or less, which require a much larger current supply.

	Watts.	Price.
No. 1435. 16 in. long by 5 deep by 8 wide, midway measurements. Copper, nickel plated. Three heats. Complete with cord and plug switch.....	1200	$30.00
No. 1436. 18 in. long by 6 deep by 9 wide, midway measurements. Copper, nickel plated. Three heats. Complete with cord and plug switch.....	1500	35.00
No. 1433. Dental sterilizer, 3½ in. by 7 in. long. Complete with tray, cord and plug.....	350	10.00
No. 1434. 6½ in. wide by 13 in. long. Complete with tray and cord.	800	14.00

STICKS, Candle (see Lamps, portable).

STICKS, Sign.

Sign Sticks.

Wooden sticks tipped with rubber for use by car conductors in turning car signs.

No. 1650. Long handle sticks.....per doz., $5.00

STICKS, Soldering (see Paste, Salts, etc.).

Allen Soldering Stick.

Non-corrosive, convenient, and effective. A substitute for resin, acids, and soldering salts.

No. S-2215. Allen soldering sticks.....each, $ .24

S.-H. Soldering Stick.

Quick acting, non-corrosive, always efficient, and very economical.

No. S-2218. S.-H. soldering stick.....each, $ .24

Solderene Stick.

A combined solder and flux for tinning and soldering small wires, brass, tin, etc. No solder required for small work. Convenient.

No. 101. Solderene stick, 1 oz.....each, $ .20
,, 701. Aluminum solderene stick for soldering aluminum wire or sheet.....each, .50
,, 201. Solderene flux stick (requires some solder); tins the wires, 1 oz.....each, .20
,, 202. Ditto, 3 oz..... ,, .50

STICKS, Switch.

Ash sticks with steel blade. With clip hanger to go over edge of dash.

No. S-2220. Long handle switch stick..per doz., $12.00
,, S-2221. Short ,, ,, ,, .. ,, 10.00

STOCK, Bit.

Patent Universal Angular Bit Stock.

The universal angular bit stock is to be used in connection with a brace and bit for boring holes in places where the brace and bit could not be used. It can be varied in any position from a straight line parallel with brace chuck to the angle shown in cut. The ability to vary the angles, either at the commencement or during the operation of boring a hole is an important feature. Put up one in a pasteboard box.

No. S-2225. Angular bit stock... ....per doz., $24.00

STONE, Commutator.

Commutator Stone.



A corundum stone 8 x 3 x 2¼ inches, for use in truing defective commutators.

No. S-2230. Commutator stone.....each, $1.50

STOPS, Cord (see Trimmings, car).

STOVES (see Heaters, etc.).

Simplex Electric Stoves.

Utensils for use with electric stoves or disc heaters must have a perfectly flat bottom (see Kettles, Pans, Dishes, etc)

Nos. 1700, 1701, 1731 may be connected into ordinary lamp sockets, but the other sizes take too much current and should be used with special receptacles. (See Receptacles, flush, Panels, etc.)

Stoves without Regulating Switches.

		Watts.	Price.
No. 1700.	3¼ in. diam., with heating regulator. Special for dentists' use. Cord and plug.....	100	$5.00
No. 1701.	4½ in. diam. Cord and lamp socket plug.....	200	4.00
No. 1702.	6 in. diam. No plug.....	440	6.00
,, 1703.	7 ,, ,, ,, ,, ...	600	7.00
,, 1704.	8 ,, ,, ,, ,, ...	825	9.00
,, 1705.	10 ,, ,, ,, ,, ...	1100	12.00
,, 1706.	12 ,, ,, ,, ,, ...	1300	15.00
,, 1708.	15 ,, ,, ,, ,, ...	1800	18.00

Stoves with Regulating Switches.

After heating the liquid to required temperature it may be kept hot with a considerable saving of current by using these regulating switches.



No. 1732.

No.		Watts. Min.	Req. Max.	Price.
1731.	4½ in. diam. Cord and plug...	55	220	$6.00
1732.	6 ,, ,, ,, no plug....	110	440	8.00
1733.	7 ,, ,, ,, ,, ,, ...	120	600	9.00
1734.	8 ,, ,, ,, ,, ,, ...	165	825	11.00
1735.	10 ,, ,, ,, and plug switch.....	275	1100	15.00
1736.	12 in. diam. Cord and plug switch.....	325	1300	18.00
1738.	15 in. diam. Cord and plug switch.....	450	1800	21.00

Traveler's Electric Stove.



No. 1710.

Meets a very pressing demand for an electric heater, equally as useful at home as when traveling. The bottom is recessed so that the cup encloses the heater when set upon it and locks in place. The heater is oxidized steel and the frame white enamel. It has 6 feet of conductor cord and a lamp socket plug with an adapter, so it may be connected to either Edison or T.-H. sockets. An asbestos table pad permits its use on a polished table without injury from heat.

The cup has a capacity of 3 half pints; is heavily tinned inside; polished nickel outside. All parts pack within the cup, which is 3¼ x 5 in. and weighs, complete, 2½ lbs. packed.

No. 1710. Packed complete, ready to connect to lamp socket..... $5.00

STOVES.

Simplex Electric Stoves (Continued).

Ornamental Stoves.



No. 1782. No. 1788.

They have an inner and outer casing of brass, except Nos. 1780 to 1782½ inclusive, which have single shell only, are heavily plated in nickel or silver as listed, and have clawfoot legs with glass balls. They are highly finished, are provided with regulating switches and have the clamping device for grooved bottom utensils.

		Watts.	Price.
No. 1780.	4½ in. Single casing, with switch, cord and plug. Nickel plated. Three heats	250	$8.00
No. 1780½.	Same. Silver plated	250	10.50
„ 1782.	6 in. Nickel plated, no plug, otherwise same as above	500	9 75
No. 1782½.	6 in. Same. Silver plated	500	13.25
„ 1784.	4½ in. Double casing. Switch, cord and plug. Nickel plated. Three heats	250	9.00
No. 1784½.	4½ in. Same. Silver plated	250	12.00
„ 1788.	6 in. Nickel plated. No plug, otherwise same as No. 1784,	500	11.00
No. 1788½.	6 in. Same. Silver plated	500	15.00
„ 1786.	4½ in. Double casing, with pearl border, switch, cord and plug. Nickel plated. Three heats,	250	9.50
No. 1786½.	4½ in. Same. Silver plated	250	12.75
„ 1790.	6 in. Nickel plated. No plug, otherwise same as No. 1786. See illustration	500	12.00
No. 1790½.	6 in. Same. Silver plated	500	16.50
„ 1792.	4½ in. Double casing. Pierced pattern, switch, cord and plug. Nickel plated. Three heats,	250	9.25
No. 1792½.	4½ in. Same. Silver plated	250	12.50
„ 1794.	6 in. No plug, otherwise same as No. 1792	500	11 50
No. 1794½.	6 in. Same. Silver plated	500	15.75



No. 1790.



No. 1794.

Portable Stove Combinations.

Following are combinations of plain portable stoves with saucepans and teakettles.

Patented method of firmly fastening utensils to stoves insures the highest efficiency possible for such combinations, and our stoves are the quickest heating it is possible to make.

		Watts. Min.	Watts. Max.	Price.
No. 1741.	1½-pint nickel plated copper saucepan, without seams or solder, with stove 4½ in. diameter, without regulating switch. Includes 5 ft. of cord and plug		200	$6.50
No. 1751.	Same, except stove has regulating switch	55	220	8.50
No. 1742.	3-pint pan with stove 6 in. diameter, without regulating switch. Includes 5 ft. of cord and plug		440	10.00
No. 1752.	Same, except stove has regulating switch	110	440	12.00
No. 1743.	1½ pint nickel plated copper teakettle with stove 4½ in. diameter, without regulating switch. Includes 5 ft. of cord and plug.		200	5.75
No. 1753.	Same, except stove has regulating switch	55	220	7.75
No. 1744.	3-pint kettle with stove 6 in. diameter, without regulating switch. Includes 5 ft. of cord and plug,		440	8.50
No. 1754.	Same, except stove has regulating switch	110	440	10.50



No. 1742.



No. 1753. No. 1751.



G. E. Elec. Stove.

STOVES (Continued).

G. E. Electric Stoves.

Disc stoves, cartridge unit type. Suitable for making toast or for heating any vessel with a flat bottom.

		Watts.	Volts.	Each.
Single Heat.				
No. 38651.	6 in.	600	95–125	$8.00
,, 43483.	6 ,,	600	200–225	9.00
,, 43484.	6 ,,	600	226–250	9.00
Three Heat.				
No. 40811.	8 in.	900–225	95–105	$16.50
,, 38652.	8 ,,	900–225	106–115	16.50
,, 40812.	8 ,,	900–225	116–125	16.50
,, 43485.	8 ,,	900–225	200–225	18.50
,, 43486.	8 ,,	900–225	226–250	18.50
,, 40813.	10 ,,	1200–400	95–105	21.50
,, 38653.	10 ,,	1200–400	106–115	21.50
,, 40814.	10 ,,	1200–400	116–125	21.50
,, 43487.	10 ,,	1200–400	200–225	24.50
,, 43488.	10 ,,	1200–400	226–250	24.50

G. E. Seven-Inch Ornamental Stove.

No. 45032.	220–575 watts,	95–105 volts,	each,	$11.00
,, 45033.	220–575 ,,	106–115 ,,	,,	11.00
,, 45034.	220–575 ,,	116–125 ,,	,,	11.00
,, 45035.	220–575 ,,	200–225 ,,	,,	11.00
,, 45036.	220–575 ,,	226–250 ,,	,,	11.00



Car Straps.

STRAIN Insulators (see I).

STRAIN Plate (see P).

STRAND (see Rope).

STRAP Keys (see K).

STRAPS, Car.

We are prepared to furnish estimates on car straps in quantities on receipt of full particulars. Give length, width, color and style, whether padded or plain, buckle or rivets, etc.

STRAPS, Climber (see Climbers).

STRAPS, Pipe (see Clips).

STRAPS, Safety (see Belts).

STRAPS, Tinned (see Clips).

STREET Fixture (see F).

STREETHOODS (see Fixtures, street).

STUDS, Fixture (see Stems).

SUPPORT, Cross Arm (see Clamp).

SUPPORT, Pole.



Jenney Pole Support.



Mule Pole Support.

Mule Pole Support.

No. 324	4½ foot	each,	$4.80
,, 325	6 ,,	,,	6.00
,, 326	7½ ,,	,,	7.80

Jenney Pole Support.

No. 322	6 foot	each,	$7.80
,, 323	7½ ,,	,,	9.00



Wire Support.

SUPPORT, Shade (see Holders).

SUPPORT, Wire (see Pendants).

Wire Support No. S-2230.

An extension bracket with porcelain insulator, used for holding arc light and other high-potential wires away from ceilings..... each, $ .50



No. 17565.



No. 17567.



No. 17566.



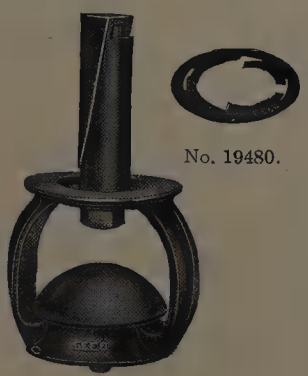
No. 17570.



No. 17571.



No. 17568.



No. 19480.

No. 37681.



No. 16925. No. 16926.

SUSPENSION Clamps (see C).

SUSPENSIONS, Street Railway.

Form D Cap and Cone Suspensions.

The cap and cone insulators are made of improved compound, which will withstand the highest temperatures encountered in service.

Straight Line.

No. 17565.	Suspension, $\frac{5}{8}$-in. stud, japanned	per 100,	$67.50
,, 37979.	,, $\frac{5}{8}$,, ,, galvanized	,,	73.33
,, 26142.	,, $\frac{3}{4}$,, ,, japanned	,,	70.00
,, 37981.	,, $\frac{3}{4}$,, ,, galvanized	,,	75.83
,, 15788.	Body, japanned	,,	17.50
,, 39700.	,, galvanized	,,	23.33

Single Curve.

No. 17567.	Suspension, $\frac{5}{8}$-in. stud, japanned	per 100,	$73.50
,, 37983.	,, $\frac{5}{8}$,, ,, galvanized	,,	81.33
,, 26145.	,, $\frac{3}{4}$,, ,, japanned	,,	76.00
,, 37984.	,, $\frac{3}{4}$,, ,, galvanized	,,	83.83
,, 15789.	Body, japanned	,,	23.50
,, 39701.	,, galvanized	,,	31.33

Double Curve.

No. 17566.	Suspension, $\frac{5}{8}$-in. stud, japanned	per 100,	$82.50
,, 37986.	,, $\frac{5}{8}$,, ,, galvanized	,,	93.33
,, 26146.	,, $\frac{3}{4}$,, ,, japanned	,,	85.00
,, 37988.	,, $\frac{3}{4}$,, ,, galvanized	,,	95.83
,, 15790.	Body, japanned	,,	32.50
,, 39702.	,, galvanized	,,	43.33

Ceiling.

No. 17570.	Suspension, $\frac{5}{8}$-in. stud, japanned	per 100,	$91.00
,, 37991.	,, $\frac{5}{8}$,, ,, galvanized	,,	104.66
,, 27550.	,, $\frac{3}{4}$,, ,, japanned	,,	93.50
,, 37993.	,, $\frac{3}{4}$,, ,, galvanized	,,	107.16
,, 15819.	Body, japanned	,,	41.00
,, 39703.	,, galvanized	,,	54.66

Strain.

No. 17571.	Suspension, $\frac{5}{8}$-in. stud, japanned	per 100,	$74.00
,, 37997.	,, $\frac{5}{8}$,, ,, galvanized	,,	82.00
,, 17082.	Body, japanned	,,	24.00
,, 39705.	,, galvanized	,,	32.00

Bracket.

		Per 100.
No. 17568.	Suspension, $\frac{5}{8}$-in. stud, for 2-in. pipe, jap'd	$138.00
,, 38005.	,, $\frac{5}{8}$,, ,, ,, 2 ,, ,, galv'd,	167.33
,, 17569.	,, $\frac{5}{8}$,, ,, ,, $1\frac{1}{2}$,, ,, jap'd	138.00
,, 38008.	,, $\frac{5}{8}$,, ,, ,, $1\frac{1}{2}$,, ,, galv'd,	167.33
,, 16960.	Body, for 2-in. pipe, japanned	88.00
,, 39706.	,, ,, 2 ,, ,, galvanized	117.33
,, 16961.	,, ,, $1\frac{1}{2}$,, ,, japanned	88.00
,, 39707.	,, ,, $1\frac{1}{2}$,, ,, galvanized	117.33

Mining.

The roof bolt and wedges for use with mining suspensions have been greatly improved, the upper wedge being provided with means for holding the bolt against turning in screwing up the suspension.

When the suspension is removed from the bolt the whole device is loosened in the hole by a blow with a hammer and may thus be readily recovered.

		Per 100.
No. 37681.	Single bolt suspension, $\frac{5}{8}$-in. stud, jap'd	$124.00
,, 37995.	" ,, ,, $\frac{5}{8}$,, ,, galv'd	140.66
,, 16387.	,, ,, body, japanned	50.00
,, 39704.	,, ,, ,, galvanized	66.66
,, 41069.	Roof bolt ($\frac{5}{8}$ in.–11, 5-in., special) with nut,	10.00
,, 35690.	Upper roof wedge	8.00
,, 35691.	Lower ,, ,,	6.00

Parts of Form D Suspension.

No. 16925.	Screw cap insulator, $\frac{5}{8}$-in. stud	$31.50
,, 16926.	Cone for No. 16925	18.50
,, 26143.	Screw cap insulator, $\frac{3}{4}$-in. stud	34.00
,, 26144.	Cone for No. 26143,	18.50
,, 19480.	Lock washer for all Form D suspensions, japanned	5.00



No. 19487.



No. 19488.



No. 19489.

SUSPENSIONS, Street Railway (Continued).

Double Trolley Form D Suspensions.

The Form D double trolley suspensions are particularly suited for use where there is a difference of potential between the two wires, inasmuch as they insulate the wires from each other. This separate insulation of the wires is essential where they are fed from different sources; for example, where two companies operate over the same track.

The distance between centres is 6½ inches, which allows ample space for frog and crossing devices where double trolley turnouts are installed.

The bodies are heavier throughout than the bodies of corresponding single trolley suspensions, and are fully adequate to the stresses of the heaviest line construction.

Double Trolley Straight Line.

	Per 100.
No. 19487. Suspension, ⅝-in. stud, japanned,	$141.00
No. 38010. Suspension, ⅝-in. stud, galvanized,	154.66
No. 21482. Suspension, ¾-in. stud, japanned,	146.00
No. 38012. Suspension, ¾-in. stud, galvanized,	159.66
No. 26147. Body, japanned,	41.00
,, 39708. ,, galvanized,	54.66

Double Trolley Single Curve.

No. 19488. Suspension, ⅝-in. stud, japanned	$150.00
No. 38014. Suspension, ⅝-in. stud, galvanized,	166.66
No. 21483. Suspension, ¾-in. stud, japanned,	155.00
No. 38016. Suspension, ¾-in. stud, galvanized,	171.66
No. 26148. Body, japanned,	50.00
,, 39709. ,, galvanized,	66.66

Double Trolley Double Curve.

No.	Stud.	Per 100.
19489.	Susp., ⅝ in., japan'd,	$160.00
39927.	,, ⅝ ,, galv'd..	180.00
21484.	,, ¾ ,, japan'd,	165.00
39928.	,, ¾ ,, galv'd..	185.00
26149.	Body, japanned...	60.00
39710.	,, galvanized..	80.00

Form H Suspensions.

Straight Line.

The Form H straight line suspensions consist of malleable iron shells into which the insulation holding the studs is permanently moulded.

These are made in two sizes respectively, 3¼ in. and 3½ in. in diameter, both of which can be furnished with either ⅝-in. or ¾-in. stud.

SUSPENSIONS, Street Railway.

Form H Suspensions
(Continued).



No. 19429.

Straight Line.

The 3½-in. suspension has extra heavy shell and arms and is designed especially for the heaviest construction.

Each of these suspensions, being in one piece, is held against turning by the span wire, and cannot, therefore, become unscrewed as a result of vibration in service.

No.		Stud	Per 100.
19429.	3¼-in. susp.,	⅝ in., jap.,	$75.00
25980.	3¼ ,, ,,	⅝ ,, gal.,	80.00
39687.	3¼ ,, ,,	¾ ,, jap.,	77.50
39688.	3¼ ,, ,,	¾ ,, gal.,	82.50
39689.	3½ ,, ,,	⅝ ,, jap.,	90.00
39690.	3½ ,, ,,	⅝ ,, gal.,	95.00
19495.	3½ ,, ,,	¾ ,, jap.,	92.50
25979.	3½ ,, ,,	¾ ,, gal.,	97.50



No. 19044.

Ceiling.

The Form H ceiling suspension has a total height of only 2 in. above the top of the ear hub, and is, therefore, especially suitable for use under bridges and elevated structures where head room is limited. Supporting ears are slotted for ½-in. lag screws or bolts.

No.	Stud.	Per 100.
19044.	Susp., ⅝ in., japanned,	$75.00
27370.	,, ⅝ ,, galvan'd,	80.00
40960.	,, ¾ ,, japanned,	77.50
40961.	,, ¾ ,, galvan'd,	82.50

Mining.

The height of the Form H mining suspension, from the top of the ear hub to the top of the bell is only 2 in., effecting maximum economy of head room.

The roof bolt and wedges used with the Form H mining suspension are the same as those used with the Form D mining suspension.



No. 35685. No. 35687.

No.		Per 100.
35685.	Single-bolt suspension, ⅝-in. stud, japanned, complete, with roof bolt and wedges	$99.00
35687.	Single-bolt suspension, ⅝-in. stud, japanned, without roof bolt and wedges	75.00
35686.	Single-bolt suspension, ⅝-in. stud, galvanized, complete with roof bolt and wedges	104.00
35688.	Single-bolt suspension, ⅝-in. stud, galvanized, without roof bolt and wedges	80.00
35689.	Roof bolt (⅝ in.–11, 5 in. special)	10.00
35690.	Upper roof wedge	8.00
35691.	Lower ,, ,,	6.00



No. 34135.



No. 34137.



No. 19045.



No. 19440.



No, 19439.

SUSPENSIONS, Street Railway (Continued).

Form H 2 Mining Suspensions.

This suspension consists of the standard Form H suspension with a gimlet point lag screw threaded and rusted into the top and projecting 3 inches above the tapped boss.

It is used in connection with a wooden plug Cat. No. 34137, which is drilled axially for lag screw.

The plug is driven into a hole drilled in the mine roof and the lag screwed into the plug, its taper splitting the wood and expanding it permanently in place.

This is also an excellent ceiling suspension for use in timbered entries, or in car-barn wiring, the lag being screwed into the roof timbers.

		Per 100.
No. 34135.	Suspension, $\frac{5}{8}$-in. stud, japanned, complete with lag screw.....	$82.00
No. 34136.	Suspension, $\frac{5}{8}$-in. stud, galvanized, complete with lag screw	87.00
No. 34137.	Wooden plug (3 in. x $1\frac{1}{2}$ in.) ..	15.00
,, 36310.	Lag screw ($\frac{5}{8}$-in., $3\frac{5}{8}$ in. special),	7.00

Form H Bracket Suspensions.

The clamps for the Form H bracket suspensions are the same as those used with Form G bracket suspensions.

		Per 100
No. 19045.	Suspension, $\frac{5}{8}$-in. stud, for 2-in. pipe, japanned.....	$135.00
No. 19046.	Suspension, $\frac{5}{8}$-in. stud, for $1\frac{1}{2}$-in. pipe, japanned.....	135.00
No. 19047.	Suspension, without clamp, japanned.....	75.00
No. 17564.	Clamp for 2-in. pipe, japanned	60.00
,, 17563.	Clamp for $1\frac{1}{2}$-inch pipe, japanned.....	60.00
No. 25992.	Suspension, $\frac{5}{8}$-in. stud, for 2-in. pipe, galvanized.....	145.00
No. 25993.	Suspension, $\frac{5}{8}$-in. stud, for $1\frac{1}{2}$-in. pipe, galvanized.....	145.00
No. 25994.	Suspension, without clamp, galvanized.....	80.00
No. 25996.	Clamp for 2-in. pipe, galvanized	65.00
,, 25997.	Clamp for $1\frac{1}{2}$-in. pipe, ,,	65.00

Form H Curve Suspensions.

The Form H curve suspensions are liberally designed malleable iron yokes fitted with giant strain insulators.

The steel cap screws are prevented from backing out as a result of vibration by steel lock washers which engage directly with the cap screw and the body.

		Per 100.
Single Curve.		
No. 19440.	Suspension, $\frac{5}{8}$-in. bolt, japanned,	$100.00
,, 25987.	Suspension, $\frac{5}{8}$-in. bolt, galvanized.....	105.00
No. 19496.	Suspension, $\frac{3}{4}$-in. bolt, japanned.....	102.50
No. 25983.	Suspension, $\frac{3}{4}$-in. bolt, galvanized.....	170.50
Double Curve.		
No. 19439.	Suspension, $\frac{5}{8}$-in. bolt, japanned	$180.00
No. 25988.	Suspension, $\frac{5}{8}$-in. bolt, galvanized.....	187.50
No. 19497.	Suspension, $\frac{3}{4}$-in. bolt, japanned	182.50
No. 25986.	Suspension, $\frac{3}{4}$-in. bolt, galvanized	190.00



No. 19498.



No. 19499.



No 33957.



No. 33959.



No. 33965.



No. 33967.

SUSPENSIONS, Street Railway (Continued).

Double Trolley Form H Curve Suspensions.

Single Curve.

For curve construction special double trolley suspensions are furnished. The distance between centres is the standard 6½ inches. The design throughout is the same as that of the Form H curve suspension for single trolley.

	Per 100.
No. 19498. Suspension, ⅝-in. bolt, japanned,	$130.00
No. 27377. Suspension, ⅝-in. bolt, galvanized	137.50
No. 11292. Suspension, ¾-in. bolt, japanned,	135.00
No. 27374. Suspension, ¾-in. bolt, galvanized	142.50

Double Curve.

	Per 100.
No. 19499. Suspension, ⅝-in. bolt, japanned,	$212.50
No. 27376. Suspension, ⅝-in. bolt, galvanized	225.00
No. 11293. Suspension, ¾-in. bolt, japanned	217.50
No. 27375. Suspension, ¾-in. bolt, galvanized	230.00

Form H2 Curve Suspensions.

The Form H2 curve suspensions are identical with corresponding Form H curve suspensions, except that a wooden strain insulator is used instead of a giant strain insulator.

	Per 100.
No. 33957. Suspension, ⅝-in. bolt, japanned, single curve	$82.50
No. 33953. Suspension, ¾-in. bolt, japanned, single curve	85.00
No. 33959. Suspension, ⅝-in. bolt, japanned, double curve	145.00
No. 33955. Suspension, ¾-in. bolt, japanned, double curve	147.50

Double Trolley Form H2 Curve Suspensions.

	Per 100.
No. 33965. Suspension, ⅝-in. bolt, japanned, single curve	$112.50
No. 33961. Suspension, ¾-in. bolt, japanned, single curve	117.50
No. 33967. Suspension, ⅝-in. bolt, japanned, double curve	177.50
No. 33963. Suspension, ¾-in. bolt, japanned, double curve	182.50



No. 17509.



No. 17513.



No. 17510.



No. 16396.



No. 38688.

SUSPENSIONS, Street Railway (Continued).

Form G Insulated Bolt Suspensions.

Straight Line.

No. 17509.	Straight line suspension, Form G, ⅝-in. stud, malleable iron, japanned . . . . . per 100,	$95.00
No. 17521.	Body for No. 17509 . . ,,	35.00
,, 17522.	Cap for No. 17509 . . ,,	15.00
,, 25976.	Straight line suspension, Form G, ⅝-in. stud, malleable iron, galvanized . . . . . per 100,	100.00
No. 25977.	Body for No. 25976 . . ,,	37.00
,, 25978.	Cap for No. 25976 . . . ,,	18.00
,, 17421.	Straight line suspension, Form G, ⅝-in. stud, composition, per 100,	185.00
No. 17514.	Body for No. 17421 . . ,,	110.00
,, 17515.	Cap for No. 17421 . . . ,,	30.00

Single Curve.

No. 17513.	Single curve suspension, Form G, ⅝-in. stud, malleable iron, japanned . . . . . per 100,	$95.00
No. 17526.	Body for No. 17513 . . ,,	35.00
,, 17522.	Cap for No. 17513 . . . ,,	15.00
,, 25981.	Single curve suspension, Form G, ⅝-in. stud, malleable iron, galvanized . . . . . per 100,	100.00
No. 25982.	Body for No. 25981 . . ,,	37.00
,, 25978.	Cap for No. 25981 . . . ,,	18.00
,, 17425.	Single curve suspension, Form G, ⅝-in. stud, composition, per 100,	195.00
No. 17518.	Body for No. 17425 . . ,,	120.00
,, 17515.	Cap for No. 17425 . . . ,,	30.00

Double Curve.

No. 17510.	Double curve suspension, Form G, ⅝-in. stud, malleable iron, japanned . . . . . per 100,	$105.00
No. 17523.	Body for No. 17510 . . ,,	45.00
,, 17522.	Cap for No. 17510 . . . ,,	15.00
,, 25984.	Double curve suspension, Form G, ⅝-in. stud, malleable iron, galvanized . . . . . per 100,	112.50
No. 25985.	Body for No. 25984 . . ,,	49.50
,, 25978.	Cap for No. 25984 . . . ,,	18.00
,, 17422.	Double curve suspension, Form G, ⅝-in. stud, composition, per 100,	220.00
,, 17517.	Body for No. 17422 . . ,,	145.00
,, 17515.	Cap for No. 17422 . . . ,,	30.00

Ceiling.

No. 16396.	Ceiling suspension, Form G, ⅝-in. stud, malleable iron, japanned, per 100,	$100.00
No. 17524.	Body for No. 16396 . . ,,	27.00
,, 17701.	Cap for No. 16396 . . . ,,	28.00
,, 25998.	Ceiling suspension, Form G, ⅝-in. stud, malleable iron, galvanized . . . . . per 100,	105.00
No. 25991.	Body for No. 25998 . . ,,	29.00
,, 25999.	Cap for No. 25998 . . . ,,	31.00
,, 16397.	Ceiling suspension, Form G, ⅝-in. stud, composition . . per 100,	190.00
No. 17519.	Body for No. 16397 . . ,,	86.00
,, 17599.	Cap for No. 16397 . . . ,,	59.00

Socket Ceiling.

No. 38688.	Socket ceiling suspension, Form G, ⅝-in. stud, malleable iron, japanned . . . . . per 100,	$75.00
No. 38689.	Body for No. 38688 . . ,,	30.00
,, 38690.	Socket ceiling suspension, Form G, ⅝-in. stud, malleable iron, galvanized . . . . . per 100,	80.00
No. 38691.	Body for No. 38690 . . ,,	35.00



No. 17512.



No. 17207.



No. 17341.



No. 11294.



No. 16380.



No. 15804.

SUSPENSIONS, Street Railway.

Form G Insulated Bolt Suspensions
(Continued).

Bracket.

The clamps for the Form G bracket suspensions are the same as those used with Form H bracket suspensions.

		Per 100.
No. 17512.	Bracket suspension, Form G, $\frac{5}{8}$-in. stud, for 2-in. pipe, malleable iron, japanned	$170.00
No. 17511.	Bracket suspension, Form G, $\frac{5}{8}$-in. stud, for $1\frac{1}{2}$-in. pipe, malleable iron, japanned	170.00
No. 17524.	Body for No. 17512 and No. 17511,	27.00
,, 17525.	Cap for No. 17512 and No. 17511	38.00
,, 17564.	Clamp for 2-in. pipe, japanned	60.00
,, 17563.	Clamp for $1\frac{1}{2}$-in. pipe, japanned	60.00
,, 25989.	Bracket suspension, Form G, $\frac{5}{8}$-in. stud, for 2-in. pipe, malleable iron, galvanized	180.00
No. 25990.	Bracket suspension, Form G, $\frac{5}{8}$-in. stud, for $1\frac{1}{2}$-in. pipe, malleable iron, galvanized	180.00
No. 25991.	Body for No. 25989 and No. 25990,	29.00
,, 25995.	Cap for No. 25989 and No. 25990	41.00
,, 25996.	Clamp for 2-in. pipe, galvanized	65.00
,, 25997.	Clamp for $1\frac{1}{2}$-in. pipe, galvanized,	65.00
,, 17424.	Bracket suspension, Form G, $\frac{5}{8}$-in. stud, for 2-in. pipe, composition,	245.00
No. 17423.	Bracket suspension, Form G, $\frac{5}{8}$-in. stud, for $1\frac{1}{2}$-in. pipe, composition	245.00
No. 17519.	Body for No. 17424 and No. 17423,	86.00
,, 17520.	Cap for No. 17424 and No. 17423	54.00
,, 17564.	Clamp for 2-in. pipe, japanned	60.00
,, 17563.	Clamp for $1\frac{1}{2}$-in. pipe, japanned	60.00

Bolts Only.

The standard insulated bolt, Catalogue No. 17207, is interchangeable in all Form G suspensions and fits all standard $\frac{5}{8}$-inch tapped ears, except the automatic ear, Catalogue No. 17338, for which a special insulated bolt, Catalogue No. 17341, with pointed stud is provided.

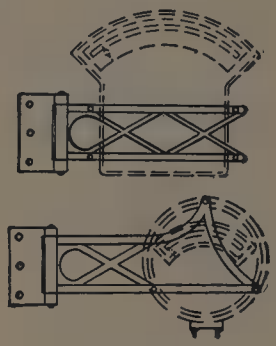
		Per 100.
No. 17207.	Insulated bolt, threaded $\frac{5}{8}$-in.–11, interchangeable in all Form G suspensions	$45.00
No. 17341.	Insulated bolt, threaded $\frac{5}{8}$-in.–11, special for automatic ear and all Form G suspensions	45.00

Feeder Tap Suspensions.

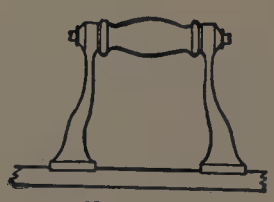
The feeder tap suspensions will fit any standard ear except the automatic ear, Catalogue No. 17338, and are used in place of the insulated suspensions, a tap from the feeder wire being substituted for the regular span wire.

		Per 100.
No. 11294.	Straight line feeder suspension, $\frac{5}{8}$-in. bolt	$66.50
No. 11296.	Straight line feeder suspension, $\frac{3}{4}$-in. bolt	66.50
No. 16380.	Feeder clamp, $\frac{5}{8}$-in. bolt	75.00
,, 15804.	Feeder yoke, $\frac{5}{8}$-in. bolt	175.00

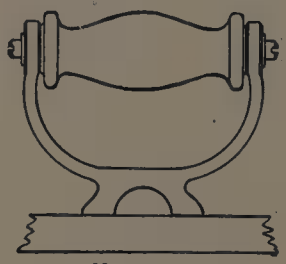
Swing Insulator (see Insulator, tree).



Swinging Brackets.



No. 41205.



No. 41206.



SWITCH **Blocks** (see Blocks).

SWITCHBOARDS.

Hill Standard Switchboards.

General Specifications.

Slate — Black enamel, ¼-in. bevel; smaller sizes, 1¼ in. thick; larger sizes, 1½ in. thick.
Standards — Angle iron, 30-in. wall braces.
Copper-plated hexagon headed switchboard bolts and washers.
Shelves on angle to take weight of panel.
Foot plates for attaching angles to floor.
Bracket — Single goose-neck bracket and shade holder, polished brass with metal half shade.
Ground detector — Two metal-covered wall receptacles, polished brass, and one single-pole switch, polished.
Instruments — Norton Type C, Weston Type K or F, all dead beat and finished in nickel and black, Copper and black finish, 25 cents net extra.
Rheostats — Boards are drilled for rheostats provided full data is given. Rheostats furnished only when ordered.
Fuses — Fuses furnished with board only when ordered. All switches arranged for Nat. Code fuses.
Bus bars — Connections are run in rectangular copper bars, based on a rating of 1,000 amperes per square inch of cross section.
Wiring — Instruments, lamp brackets, and ground detectors are connected with No. 14 R. C. wire. Necessary cut-outs are provided.
Packing — boards are securely crated and furnished f. o. b. cars factory. Instruments will usually be shipped by express separately.

Handles and Brackets.

Spade handles, metal parts, copper; handles, black wood.

		List.
No. 41205.	Handles, 100 amperes inclusive	$2.00
,, 41206.	,, over 100 amperes to 500 amperes inclusive	4.00
No. 41207.	Swinging brackets, black japan finish,	7.50
,, 41208.	Raised parts, nickel or copper, balance black japan	12.50
No. 41209.	Full nickel or copper finish	20.00

Brackets for any standard type of instrument.
Spade handles for switches above 500 amperes on application.

NOTE. — In ordering, use catalogue number. In the blank space after the number place the letter of the type of instrument desired. For example: 41097C = ■ 41097 Switchboard with a Norton C instrument.

Style G1 Hill Switchboards.

Black enameled slate, 24 x 30 x 1¼ inches.
Mounted on japanned flat iron wall brackets.
1–150 volt round pattern voltmeter.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41097.	30	144	$63.00	$70.00	$93.00
,, 41098.	60	149	64.00	72.00	95.00
,, 41099.	100	154	67.00	75.00	98.00
,, 41100.	200	160	72.00	80.00	103.00

		Net.
No. 41101.	White Italian or blue Vermont marble, add	$3.00
No. 41102.	Pink Tennessee marble, add	2.00
,, 41103.	250-volt, Norton C dead beat, add	1.80
,, 41104.	250 ,, Weston K ,, ,, ,,	2.50
,, 41105.	250 ,, ,, F ,, ,, ,,	1.75

SWITCHBOARDS (Continued)

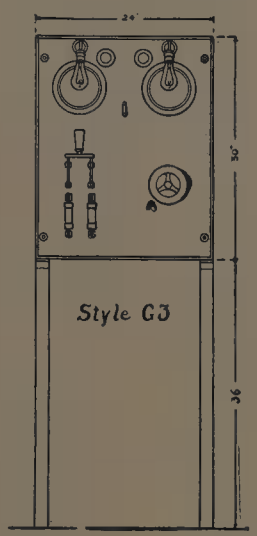


Style G2 Hill Switchboards.

Black enameled slate, 30 x 36 x 1¼ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41106.	200	217	$79.00	$87.00	$110.00
,, 41107.	300	222	82.00	90.00	113.00
,, 41108.	400	227	86.00	94.00	117.00

No. 41109. White Italian or blue Vermont marble, add . . net, $5.00
,, 41110. Pink Tennessee marble, add . . . . . ,, 3.00
,, 41111. 250-volt, Norton C dead beat, add . . . . . ,, 1.80
,, 41112. 250 ,, Weston K ,, ,, ,, ... ,, 2.50
,, 41113. 250 ,, ,, F ,, ,, ,, ... ,, 1.75

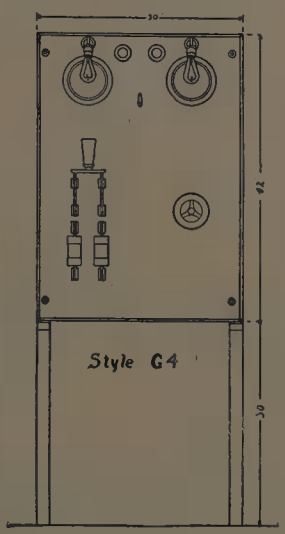


Style G3 Hill Switchboards.

Black enameled slate, 24 x 30 x 1¼ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F
No. 41114.	30	144	$104.00	$116.00	$156.00
,, 41115.	60	149	106.00	118.00	159.00
,, 41116.	100	154	112.00	121.00	163.00

No. 41117. White Italian or blue Vermont marble, add. . net, $3.00
,, 41118. Pink Tennessee marble, add . . . . . ,, 2.00
,, 41119. 250-volt, Norton C dead beat, add . . . . . ,, 1.80
,, 41120. 250 ,, Weston K ,, ,, ,, ... ,, 2.50
,, 41121. 250 ,, ,, F ,, ,, ,, ... ,, 1.75



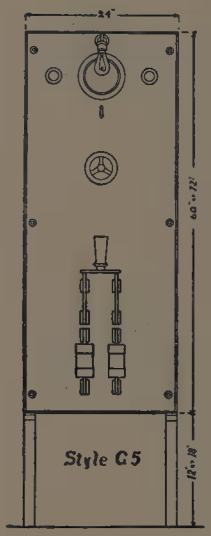
Style G4 Hill Switchboards.

Black enameled slate, 30 x 42 x 1¼ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41122.	200	253	$129.00	$138.00	$178.00
,, 41123.	300	258	136.00	142.00	182.00
,, 41124.	400	263	142.00	148.00	188.00

No. 41125. White Italian or blue Vermont marble, add. . net, $5.00
,, 41126. Pink Tennessee marble, add . . . . . ,, 2.00
,, 41127. 250-volt, Norton C dead beat, add . . . . . ,, 1.80
,, 41128. 250 ,, Weston K ,, ,, ,, ... ,, 2.50
,, 41452. 250 ,, ,, F ,, ,, ,, ... ,, 1.75

SWITCHBOARDS (Continued).

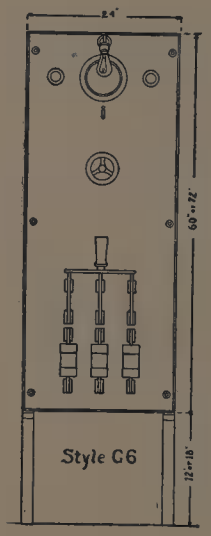


Style G5 Hill Switchboards.

Black enameled slate, 24 x 60 or 72 x 1½ inches.
Mounted on japanned angle iron standards.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41129.	100	410	$93.00	$95.00	$114.00
,, 41130.	200	415	106.00	105.00	123.00
,, 41131.	300	420	118.00	113.00	130.00
,, 41132.	400	425	126.00	120.00	137.00
,, 41133.	500	430	150.00	141.00	157.00
,, 41134.	600	435	164.00	148.00	164.00

No. 41135. White Italian or blue Vermont marble, add . . . net, $9.00
,, 41136. Pink Tennessee marble, add . . . . . ,, 5.00

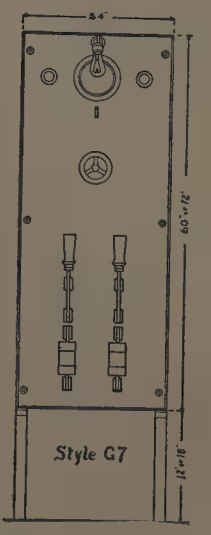


Style G6 Hill Switchboards.

Black enameled slate, 24 x 60 or 72 x 1½ inches.
Mounted on japanned angle iron standards.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41137.	100	410	$96.00	$98.00	$117.00
,, 41138.	200	415	112.00	111.00	128.00
,, 41139.	300	420	126.00	121.00	127.00
,, 41140.	400	425	124.00	129.00	146.00
,, 41141.	500	430	168.00	159.00	175.00
,, 41142.	600	435	183.00	167.00	183.00

No. 41143. White Italian or blue Vermont marble, add . . . net, $9.00
,, 41144. Pink Tennessee marble, add . . . . . ,, 5.00



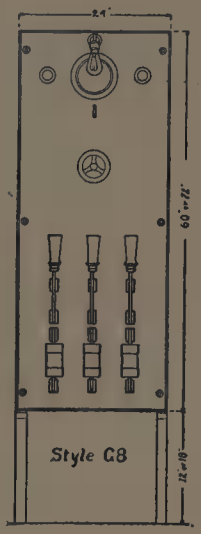
Style G7 Hill Switchboards.

Black enameled slate, 24 x 60 or 72 x 1½ inches.
Mounted on japanned angle iron standards.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41145.	100	410	$95.00	$97.00	$116.00
,, 41146.	200	415	110.00	109.00	126.00
,, 41147.	300	420	123.00	118.00	135.00
,, 41148.	400	425	122.00	126.00	143.00
,, 41149.	500	430	162.00	153.00	169.00
,, 41150.	600	435	177.00	161.00	177.00

No. 41151. White Italian or blue Vermont marble, add . . . net, $9.00
,, 41152. Pink Tennessee marble, add . . . . . ,, 5.00

SWITCHBOARDS (Continued).

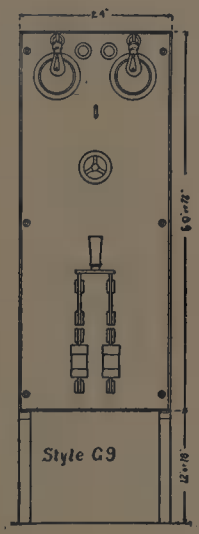


Style G8 Hill Switchboards.

Black enameled slate, 24 x 60 or 72 x 1½ inches.
Mounted on japanned angle iron standards.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41153.	100	410	$100.00	$102.00	$121.00
,, 41154.	200	415	115.00	117.00	134.00
,, 41155.	300	420	133.00	128.00	145.00
,, 41156.	400	425	144.00	138.00	155.00
,, 41157.	500	430	186.00	177.00	193.00
,, 41158.	600	435	202.00	186.00	202.00

No. 41159. White Italian or blue Vermont marble, add . . . net, $9.00
,, 41160. Pink Tennessee marble, add . . . . . ,, 5.00

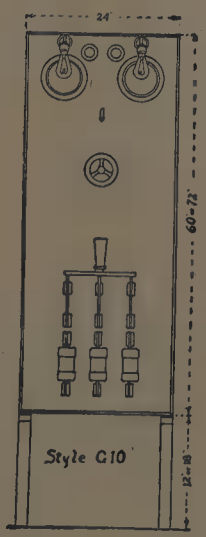


Style G9 Hill Switchboards.

Black enameled slate, 24 x 60 or 72 x 1½ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41161.	100	410	$130.00	$140.00	$182.00
,, 41162.	200	415	136.00	151.00	191.00
,, 41163.	300	420	156.00	158.00	198.00
,, 41164.	400	425	163.00	165.00	205.00
,, 41165.	500	430	188.00	186.00	225.00
,, 41166.	600	435	202.00	193.00	232.00

No. 41167. White Italian or blue Vermont marble, add . . . net, $9.00
,, 41168. Pink Tennessee marble, add . . . . . ,, 5.00
,, 41169. 250-volt, Norton C dead beat, add . . . . . ,, 1.80
,, 41170. 250 ,, Weston K ,, ,, ,, ... ,, 2.50
,, 41171. 250 ,, ,, F ,, ,, ,, ... ,, 1.75



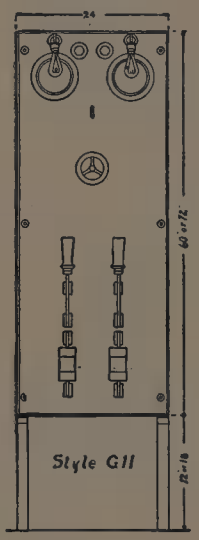
Style G10 Hill Switchboards.

Black enameled slate, 24 x 60 or 72 x 1½ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41172.	100	410	$134.00	$143.00	$185.00
,, 41173.	200	415	148.00	156.00	196.00
,, 41174.	300	420	163.00	166.00	206.00
,, 41175.	400	425	173.00	175.00	214.00
,, 41176.	500	430	205.00	204.00	243.00
,, 41177.	600	435	221.00	212.00	251.00

No. 41178. White Italian or blue Vermont marble, add . . . net, $9.00
,, 41179. Pink Tennessee marble, add . . . . . ,, 5.00
,, 41180. 250-volt, Norton C dead beat, add . . . . . ,, 1.80
,, 41181. 250 ,, Weston K ,, ,, ,, ... ,, 2.50
,, 41182. 250 ,, ,, F ,, ,, ,, ... ,, 1.75

SWITCHBOARDS (Continued).

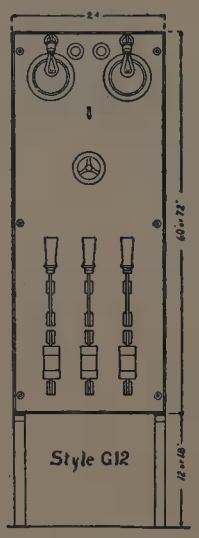


Style G11 Hill Switchboards.

Black enameled slate, 24 x 60 or 72 x 1½ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41183.	100	410	$130.00	$142.00	$184.00
,, 41184.	200	415	145.00	154.00	195.00
,, 41185.	300	420	160.00	163.00	203.00
,, 41186.	400	425	170.00	171.00	211.00
,, 41187.	500	430	200.00	198.00	237.00
,, 41188.	600	435	210.00	206.00	245.00

No. 41189.	White Italian or blue Vermont marble, add...net,	$9.00
,, 41190.	Pink Tennessee marble, add..... ,,	5.00
,, 41191.	250-volt, Norton C dead beat, add..... ,,	1.80
,, 41192.	250 ,, Weston K ,, ,, ,, ... ,,	2.50
,, 41193.	250 ,, ,, F ,, ,, ,, ... ,,	1.75



Style G12 Hill Switchboards.

Black enameled slate, 24 x 60 or 72 x 1½ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41194.	100	410	$137.00	$147.00	$188.00
,, 41195.	200	415	155.00	162.00	202.00
,, 41196.	300	420	171.00	173.00	213.00
,, 41197.	400	425	181.00	184.00	223.00
,, 41198.	500	430	224.00	224.00	261.00
,, 41199.	600	435	239.00	230.00	270.00

No. 41200.	White Italian or blue Vermont marble, add...net,	$9.00
,, 41201.	Pink Tennessee marble, add..... ,,	5.00
,, 41202.	250-volt, Norton C dead beat, add..... ,,	1.80
,, 41203.	250 ,, Weston K ,, ,, ,, ... ,,	2.50
,, 41204.	250 ,, ,, F ,, ,, ,, ... ,,	1.75



Style GF1 Hill Switchboards.

Black enameled slate, 30 x 42 x 1¼ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
See general specifications.

	Am ere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41210.	60	180	$119.00	$130.00	$171.00
,, 41211.	100	185	135.00	144.00	187.00
,, 41212.	200	190	152.00	160.00	200.00
,, 41213.	300	195	170.00	175.00	205.00
,, 41214.	400	200	185.00	191.00	231.00

No. 41215.	White Italian or blue Vermont marble, add...net,	$4.00
,, 41216.	Pink Tennessee marble, add..... ,,	2.00
,, 41217.	250-volt, Norton C dead beat, add..... ,,	1.80
,, 41218.	250 ,, Weston K ,, ,, ,, ... ,,	2.50
,, 41219.	250 ,, ,, F ,, ,, ,, ... ,,	1 75

SWITCHBOARDS (Continued).

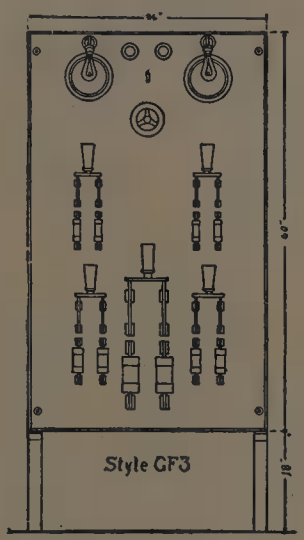


Style GF2 Hill Switchboards.

Black enameled slate, 30 x 54 x 1½ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41220.	60	385	$140.00	$149.00	$191.00
,, 41221.	100	390	157.00	166.00	208.00
,, 41222.	200	395	171.00	180.00	220.00
,, 41223.	300	400	194.00	201.00	240.00
,, 41224.	400	405	189.20	196.00	236.00

		Net.
No. 41225.	White Italian or blue Vermont marble, add	$7.00
,, 41226.	Pink Tennessee marble, add	4.00
,, 41227.	250-volt, Norton C dead beat, add	1.80
,, 41228.	250 ,, Weston K ,, ,, ,,	2.50
,, 41229.	250 ,, ,, F ,, ,, ,,	1.75

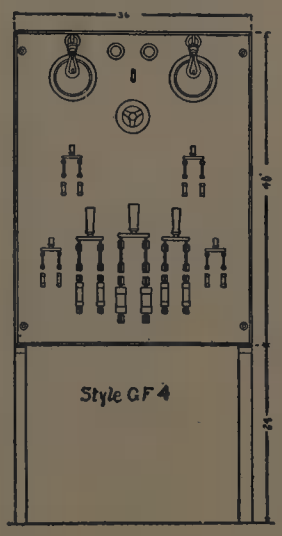


Style GF3 Hill Switchboards.

Black enameled slate, 36 x 60 x 1½ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41230.	400	513	$205.00	$200.00	$240.00
,, 41231.	500	518	240.00	233.00	272.00
,, 41232.	500	518	240.00	233.00	272.00
,, 41233.	600	523	259.00	249.00	288.00
,, 41234.	600	523	250.00	240.00	279.00

		Net.
No. 41235.	White Italian or blue Vermont marble, add	$9.00
,, 41236.	Pink Tennessee marble, add	4.00
,, 41237.	250-volt, Norton C dead beat, add	1.80
,, 41453.	250 ,, Weston K ,, ,, ,,	2.50
,, 41238.	250 ,, ,, F ,, ,, ,,	1.75

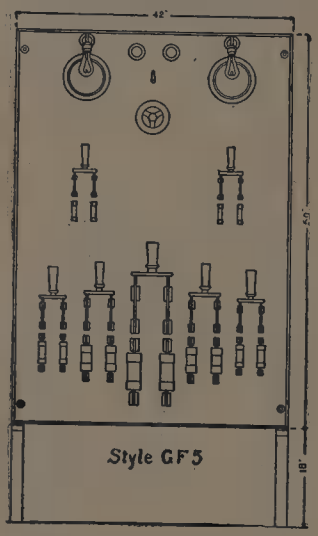


Style GF4 Hill Switchboards.

Black enameled slate, 36 x 48 x 1¼ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41239.	100	346	$153.00	$158.00	$200.00
,, 41240.	200	351	161.00	168.00	208.00
,, 41241.	200	356	164.00	171.00	211.00
,, 41242.	200	356	167.00	176.00	216.00
,, 41243.	300	361	187.00	190.00	230.00
,, 41244.	300	361	190.00	193.00	233.00

		Net.
No. 41245.	White Italian or blue Vermont marble, add	$6.00
,, 41246.	Pink Tennessee marble, add	3.00
,, 41247.	250-volt, Norton C dead beat, add	1.80
,, 41248.	250 ,, Weston K ,, ,, ,,	2.50
,, 41249.	250 ,, ,, F ,, ,, ,,	1.75



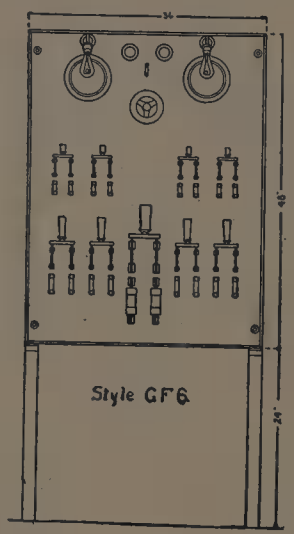
SWITCHBOARDS (Continued).

Style GF5 Hill Switchboards.

Black enameled slate, 42 x 60 x 1½ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41250.	400	597	$228.00	$225.00	$265.00
,, 41251.	400	597	226.00	223.00	263.00
,, 41252.	500	602	264.00	257.00	296.00
,, 41253.	600	607	283.00	272.00	311.00
,, 41254.	600	607	286.00	274.00	313.00
,, 41255.	600	607	278.00	267.00	304.00

		Net.
No. 41256.	White Italian or blue Vermont marble, add..	$10.00
,, 41257.	Pink Tennessee marble, add.....	4.00
,, 41258.	250-volt, Norton C dead beat, add.....	1.80
,, 41259.	250 ,, Weston K ,, ,, ,, ...	2.50
,, 41260.	250 ,, ,, F ,, ,, ,, ...	1.75

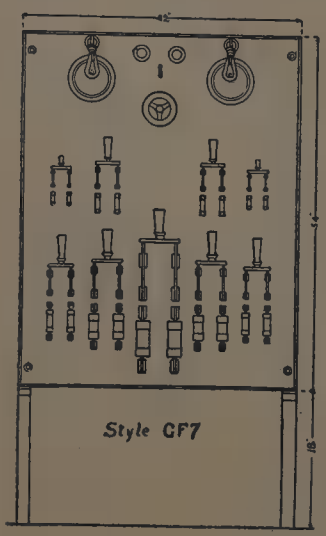


Style GF6 Hill Switchboards.

Black enameled slate, 36 x 48 x 1¼ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41261.	200	344	$170.00	$175.00	$216.00
,, 41262.	200	344	177.00	182.00	223.00
,, 41263.	300	350	190.00	189.00	229.00

		Net.
No. 41264.	White Italian or blue Vermont marble, add..	$6.00
,, 41265.	Pink Tennessee marble, add.....	3.00
,, 41266.	250-volt, Norton C dead beat, add.....	1.80
,, 41267.	250 ,, Weston K ,, ,, ,, ...	2.50
,, 41268.	250 ,, ,, F ,, ,, ,, ...	1.75

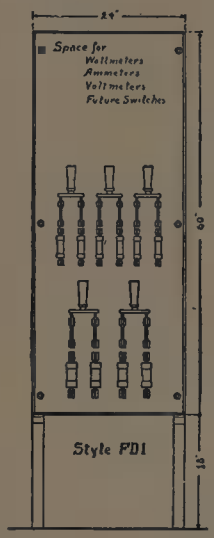


Style GF7 Hill Switchboards.

Black enameled slate, 42 x 54 x 1½ inches.
Mounted on japanned angle iron standards.
1–150 volt round pattern voltmeter.
1 round pattern ammeter.
See general specifications.

	Ampere, Main Switch.	Weight.	Norton C.	Weston K.	Weston F.
No. 41269.	300	537	$211.00	$210.00	$250.00
,, 41270.	400	542	223.00	220.00	259.00
,, 41271.	400	542	234.00	231.00	271.00
,, 41272.	500	547	275.00	268.00	307.00
,, 41273.	600	552	281.00	275.00	314.00
,, 41274.	600	552	315.00	280.00	319.00

		Net.
No. 41275.	White Italian or blue Vermont marble, add...	$9.00
,, 41276.	Pink Tennessee marble, add.....	4.00
,, 41277.	250-volt, Norton C dead beat, add.....	1.80
,, 41278.	250 ,, Weston K ,, ,, ,, ...	2.50
,, 41279.	250 ,, ,, F ,, ,, ,, ...	1.75



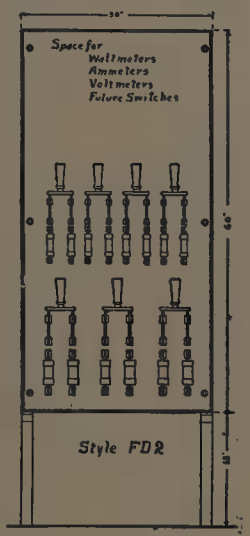
SWITCHBOARDS (Continued).

NOTE. — In ordering, use catalogue number. The FD1, FD2, FD3, and FD4 panels will be furnished on 72-inch slabs without extra charge, if they are ordered to be mounted with other 72-inch feeder or generator panels.

Style FD1 Hill Switchboards.

Black enameled slate, 24 x 60 x 1½ inches.
Mounted on japanned angle iron standards.
See general specifications.

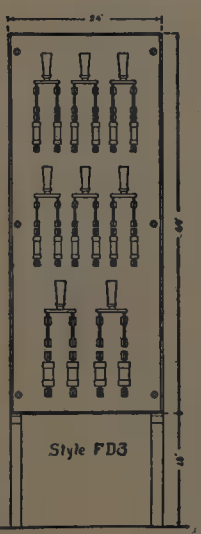
	Number and Amperage of Switches.	Weight.	List.
No. 41280	3–30 and 2– 60 amperes	342	$58.00
,, 41281	3–30 ,, 2–100 ,,	347	71.00
,, 41282	3–30 ,, 2–200 ,,	352	89.00
,, 41283	3–60 ,, 2–100 ,,	352	85.00
,, 41284	3–60 ,, 2–200 ,,	357	99.00
,, 41285	3–60 ,, 2–300 ,,	362	112.00
,, 41286	3–60 ,, 2–400 ,,	367	132.00
No. 41287.	White Italian or Blue Vermont marble, add ..net,		$7.00
,, 41288.	Pink Tennessee marble, add		4.00



Style FD2 Hill Switchboards.

Black enameled slate, 30 x 60 x 1½ inches.
Mounted on angle iron standards.
See general specifications.

	Number and Amperage of Switches.	Weight.	List.
No. 41289	4–30 and 3– 60 amperes	426	$81.00
,, 41290	4–30 ,, 3–100 ,,	431	100.00
,, 41291	4–30 ,, 3–200 ,,	436	125.00
,, 41292	4–60 ,, 3–100 ,,	436	111.00
,, 41293	4–60 ,, 3–200 ,,	441	140.00
,, 41294	4–60 ,, 3–300 ,,	446	161.00
,, 41295	4–60 ,, 3–400 ,,	451	193.00
No. 41296.	White Italian or blue Vermont marble, add ..net,		$8.00
,, 41297.	Pink Tennessee marble, add ,,		4.00

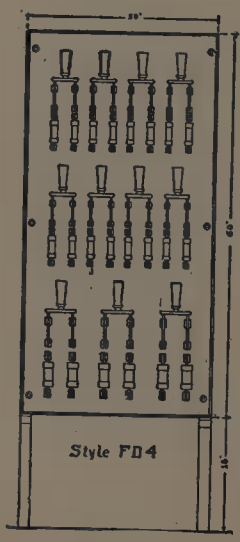


Style FD3 Hill Switchboards.

Black enameled slate, 24 x 60 x 1½ inches.
Mounted on japanned angle iron standards.
See general specifications.

	Number and Amperage of Switches.	Weight.	List.
No. 41298	6–30 and 2–60 amperes	347	$73.00
,, 41299	3–30, 3–60, and 2–100 amperes	352	92.00
,, 41300	3–30, 3–100, and 2–200 amperes	357	126.00
,, 41301	8–60 amperes	357	90.00
,, 41302	6–60 and 2–200 amperes	362	120.00
,, 41303	3–60, 3–100, and 2–200 amperes	367	125.00
,, 41304	3–60, 3–100, and 2–300 ,,	372	152.00
,, 41305	3–60, 3–200, and 2–400 ,,	377	198.00
,, 41306	6–60 and 2–100 amperes	360	106.00
,, 41307	3–60, 3–200, and 2–300 amperes	382	175.00
No. 41308.	White Italian or Blue Vermont marble, add..net,		$7.00
,, 41309.	Pink Tennessee marble, add ,,		4.00

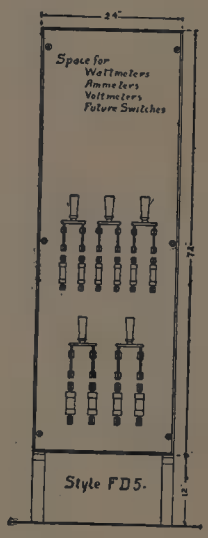
SWITCHBOARDS (Continued).



Style FD4 Hill Switchboards.

Black enameled slate, 30 x 60 x 1½ inches.
Mounted on japanned angle iron standards.
See general specifications.

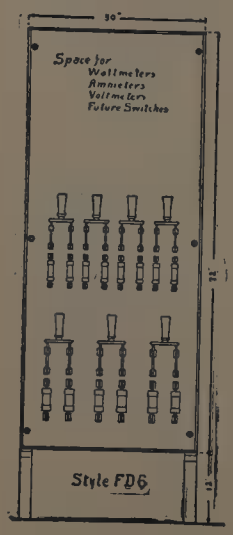
	Number and Amperage of Switches.	Weight.	List.
No. 41310	7–30 and 4–60 amperes	431	$102.00
,, 41311	4–30, 4–60, and 3–100 amperes	436	136.00
,, 41312	4–30, 4–60, ,, 3–200 ,,	441	170.00
,, 41313	4–30, 4–100, ,, 3–200 ,,	446	193.00
,, 41314	11–60 amperes	446	131.00
,, 41315	4–60, 4–100, and 3–200 amperes	451	209.00
,, 41316	4–60, 4–100, ,, 3–200 ,,	451	286.00
,, 41317	4–60, 4–200, ,, 3–300 ,,	456	155.00
,, 41318	7–60 and 4–100 amperes	456	257.00
No. 41319.	White Italian or blue Vermont marble, add	net,	$8.00
,, 41320.	Pink Tennessee marble, add	,,	4.00



Style FD5 Hill Switchboards.

Black enameled slate, 24 x 72 x 1½ inches.
Mounted on japanned angle iron standards.
See general specifications.

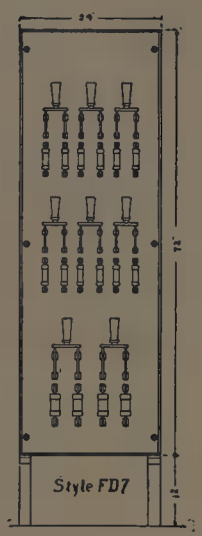
	Number and Amperage of Switches.	Weight.	List.
No. 41321	3–100 and 2–200 amperes	410	$121.00
,, 41322	3–100 ,, 2–300 ,,	415	139.00
,, 41323	3–100 ,, 2–400 ,,	420	151.00
,, 41324	3–200 ,, 2–300 ,,	425	163.00
,, 41325	3–200 ,, 2–400 ,,	430	185.00
,, 41326	3–200 ,, 2–500 ,,	435	230.00
,, 41327	3–300 ,, 2–400 ,,	435	210.00
,, 41328	3–300 ,, 2–500 ,,	440	254.00
,, 41329	3–300 ,, 2–600 ,,	445	263.00
No. 41330.	White Italian or blue Vermont marble, add	net,	$9.00
,, 41331.	Pink Tennessee marble, add	,,	6.00



Style FD6 Hill Switchboards.

Black enameled slate, 30 x 72 x 1½ inches.
Mounted on japanned angle iron standards.
See general specifications.

	Number and Amperage of Switches.	Weight.	List.
No. 41332	4–100 and 3–200 amperes	513	$170.00
,, 41333	4–100 ,, 3–300 ,,	518	198.00
,, 41334	4–100 ,, 3–400 ,,	523	224.00
,, 41335	4–200 ,, 3–300 ,,	523	237.00
,, 41336	4–200 ,, 3–400 ,,	528	260.00
,, 41337	4–200 ,, 3–500 ,,	538	324.00
,, 41338	4–200 ,, 3–600 ,,	533	339.00
No. 41339.	White Italian or blue Vermont marble, add	net,	$10.00
,, 41340.	Pink Tennessee marble, add	,,	5.00



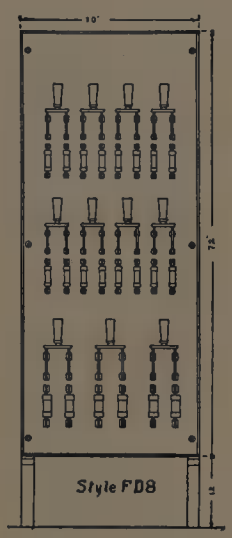
SWITCHBOARDS (Continued).

Style FD7 Hill Switchboards.

Black enameled slate, 24 x 72 x 1½ inches.
Mounted on japanned angle iron standards.
See general specifications.

	Number and Amperage of Switches.	Weight.	List.
No. 41341	6–100 and 2–200 amperes	410	$159.00
,, 41342	3–100, 3–200, and 2–400 amperes	415	222.00
,, 41343	6–200 and 2–300 amperes	420	233.00
,, 41344	6–200 ,, 2–400 ,,	425	246.00
,, 41345	3–200, 3–300, and 2–500 amperes	430	335.00
,, 41346	6–200 and 2–600 amperes	435	329.00
,, 41347	6–300 ,, 2–400 ,,	440	319.00
,, 41348	6–300 ,, 2–500 ,,	445	364.00
,, 41349	6–300 ,, 2–600 ,,	450	367.00

No. 41350. White Italian or blue Vermont marble, add ..net, $9.00
,, 41351. Pink Tennessee marble, add ..... ,, 5.00



Style FD8 Hill Switchboards.

Black enameled slate, 30 x 72 x 1½ inches.
Mounted on japanned angle iron standards.
See general specifications.

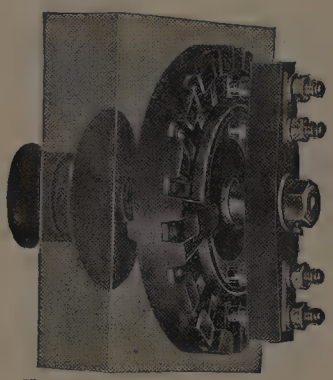
	Number and Amperage of Switches.	Weight.	List.
No. 41352	7–100 and 4–200 amperes	513	$236.00
,, 41353	4–100 ,, 7–200 ,,	518	280.00
,, 41354	4–100, 4–200, and 3–300 amperes	523	309.00
,, 41355	4–100, 4–200, ,, 3–400 ,,	528	340.00
,, 41356	11–200 amperes	528	328.00
,, 41357	8–200 and 3–500 amperes	543	411.00
,, 41358	8–200 ,, 3–600 ,,	548	417.00
,, 41359	8–200 ,, 3–300 ,,	533	238.00
,, 41360	8–200 ,, 3–400 ,,	538	359.00

No. 41361. White Italian or blue Vermont marble, add ..net, $9.00
,, 41362. Pink Tennessee marble, add ..... ,, 5.00

SWITCHES (see Frogs, Cut-Outs, Fuses, enclosed, etc.).

SWITCHES, see following headings:

Switches, Ammeter.
,, Automatic (see Switches, time).
,, Canopy.
,, Car Lighting.
,, Ceiling.
,, Combination.
,, Cut-Out (see Cut-Outs, Edison plug, and Switches, combination).
,, Door.
,, Entrance (see Switches, combination and Switches, service).
,, Equalizer.
,, Gas Engine.
,, Heater (see Switches, snap, 500 volts).
,, High Insulation (see Cut-Outs, arc)
,, Hood.
,, Ice-Chest.
,, Illuminating (see Flashers).
,, Key (see Switches, socket).
,, Key-Arm.
,, Knife.
,, Line (see Switches, section).
,, Marine.
,, Oil-Break.
,, Overhead (see Frogs).
,, Panel (see Cut-Outs, Edison plug).
,, Pendant.
,, Plug (see Receptacles).
,, Pole Changing.
,, Pull.
,, Push (see Switches, snap. flush, and push).
,, Rubber (see Switches, wood and rubber).
,, Section.
,, Service.
,, Snap, flush and push.
,, Socket.
,, Time.
,, Voltmeter.
,, Wood and Rubber.
,, Yale Lock.



Hill's Ammeter Switch, Style Y.

SWITCHES, Ammeter.

Hill's Ammeter Switches, Style Y.

For use with one or more ammeter shunts.

Provided with large laminated contact surfaces so that errors due to resistance are eliminated.

All parts are visible and are easily cleaned.

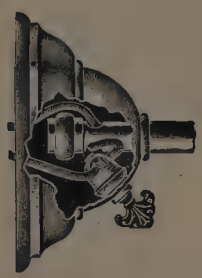
No.	39848.	2	circuit ammeter switch	each,	$9.35
,,	39849.	4	,, ,, ,, ...	,,	13.25
,,	39850.	6	,, ,, ,, ...	,,	19.50
,,	39851.	8	,, ,, ,, ...	,,	28.50

SWITCHES, Canopy.

" Noscru " Canopy Switch.

Can be applied to portables, brackets, canopies, or body parts, or any artistic metal work where electric lights are required.

No.	S-2235.	Switch	each,	$1.20
,,	S-2236.	Key only	,,	.25



Canopy Switch.

SWITCHES, Car Lighting.

Combined Switch and Enclosed Fuse Cut-Out for Car Lighting.

The switch movement is positive and very rapid in its action, and will break its rated load under all conditions.

The fuse, which is of the enclosed type, will effectively rupture a dead short circuit on any line with a voltage up to 650. It is held by spring clips, no binding screws being used, and is, therefore, simply snapped into place. The cover also is held by substantial clips and carries no portion of the circuit. The contacts and binding screws for wiring, which are mounted on the surface of the flat base, are all easily accessible and the back of the base is recessed so that the device can be used in connection with either cleat or concealed wiring.

		Std. Pkg.	Each.
No. 27682.	Combined switch and cut-out, 3 amps., 600 volts, complete with fuse	50	$1.20
No. 28839.	3 amps., G. E. enclosed fuse, for use with Cat. No. 27682....	100	.20



No. 27682.

SWITCHES, Ceiling (see Switches, pull).

Perfection Ceiling and Wall Switch.

Can be used directly on the ceiling, to be operated from below.

First pull closes the switch, second pull opens it. Quick break and quick make.

It brings the operation right to the point needed.

No.	2481	20	amps.,	2-pole	$2.50
,,	2482	20	,,	3 ,, ...	5.00
,,	2483	35	,,	2 ,, ...	5.00
,,	2484	35	,,	3 ,, ...	7.00
,,	2485	50	,,	2 ,, ...	10.00
,,	2486	50	,,	3 ,, ...	12.00
,,	2487	75	,,	2 ,, ...	11.00
,,	2488	75	,,	3 ,, ...	13.00
,,	2489	100	,,	2 ,, ...	13.00
,,	2490	100	,,	3 ,, ...	15.00
,,	2491	150	,,	2 ,, ...	15.00
,,	2492	150	,,	3 ,, ...	22.50



No. 2481.

Sorensen Ceiling Switch.

Sorensen Ceiling Switch.

Constructed with a union joint, which insures positive and easy action. Left hand thread in handle prevents its becoming loose. Operated by a cord, which overcomes all dangers of short-circuit. Requires only two screws to fasten to ceiling. Diamond H snap switch used.

No.	100.	10 amps.,	220 volts,	single pole ..... each,	$1.60
,,	101.	10 ,,	220 ,,	double pole .... ,,	2.00
,,	102.	10 ,,	220 ,,	3-way ..... ,,	2.00
,,	103.	10 ,,	220 ,,	4 ,, ... ,,	2.00

SWITCHES, Ceiling (Continued).

G. E. Ceiling Switch.

No. 30342. S. P., 3 amps., 220 volts, or 6 amps., 110 volts, ceiling switch, nickeled, Each. $1.25



No. 30342.

Perkins Pull Switch, 250 Volts.

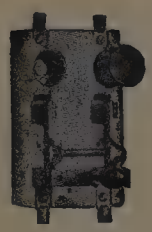
No. 2309.	10 amps.,	single pole	each,	$1.00
,, 2310.	10 ,,	3-point	,,	1.18
,, 2311.	10 ,,	4-point	,,	1.18
,, 2312.	10 ,,	electrolier, 2-circuit	,,	1.18
,, 2313.	10 ,,	,, 3 ,,	,,	1.18
,, 2314.	10 ,,	double pole	,,	1.18

Perkins Pull Switch.

SWITCHES, Combination (see Cut-Outs, Panelettes, Switches, snap, and Switches, service).

G. E. Combined Switch and Cut-Out.

For 125 and 250 volts service. They are of the punched clip type, thoroughly and substantially made, with all metal parts of ample current carrying capacity. Large G. E. fuse plugs such as are used in Edison plug cut-outs are employed. Bases are of porcelain. Switches are made in double and triple-pole types. Fuses not included in price.



No. 28703.

	Std. Pkg.	Price, Each.
No. 35371. D. P., S. T., 60 amps., 250 volts, lever type, bottom service connections	50	$3.25
No. 42868. D. P., S. T., 60 amps., 250 volts, lever type, top service connections	50	3.25
No. 35372. T. P., S. T., 60 amps., 250 volts, lever type, bottom service connections	25	5.00
No. 42867. T. P., S. T., 60 amps., 250 volts, lever type, top service connections	25	5.00
No. 28703. D. P., S. T., 60 amps., 250 volts, quick-break type, top service connections	50	5.00
No. 28704. T. P., S. T., 60 amps., 250 volts, quick-break type, top service connections	25	8.00



No. 4014.



No. 4016.

Paiste Entrance Switches (see Cut-Outs, Edison plug).

Plug Fuse Type, 125 Volts.	Std. Pkg.	Pkg. Wt.	Each.
No. 4014. D. P., S. T., 25 amps., for use where service wires enter top of building; size $3\frac{3}{16}$ x $5\frac{1}{8}$ x $1\frac{5}{8}$ in.	100	190	$ .90
No. 4016. D. P., S. T., 25 amps., for use where service wires enter basement; size $3\frac{3}{16}$ x $5\frac{1}{8}$ x $1\frac{5}{8}$ in.	100	190	.90
Plug Fuse Type, 250 Volts.			
No. 4020. D. P., S. T., 30 amps., for use where service wires enter top of building; size 4 x $6\frac{1}{2}$ x $1\frac{7}{8}$ in.	100	150	1.00
No. 4022. D. P., S. T., 30 amps. Same as 4020 but with extra heavy terminals at fuse end for No. 4 wire	50	153	1.10
No. 4024. D. P., S. T., 30 amps., for use where service wires enter basement; size 4 x $6\frac{1}{2}$ x $1\frac{7}{8}$ in.	100	150	1.00
No. 4028. D. P., S. T., 30 amps. Same as 4024 but with extra heavy terminals at fuse end for No. 4 wire	50	153	1.10



No. 4020.



No. 4024.



No. 4021.



No. 4025.



No. 4030.



Eco Door Switch.



" Diamond H " Door Switch.

SWITCHES, Combination.

Paiste Entrance Switches (Continued).

	Std. Pkg.	Pkg. Wgt.	Each.
No. 4021. T. P., S. T., 30 amperes, for use where service wires enter top of building, size 5 x 6½ x 1⅞ in.	50	190	$1.40
No. 4023. T. P., S. T., 30 amperes, same as No. 4021, but with extra heavy terminals at fuse end for No. 4 wire	25	195	1.55
No. 4025. T. P., S. T., 30 amperes, for use where service wires enter basement, size 5 x 6½ x 1⅞ in.	50	190	1.40
No. 4029. T. P., S. T., 30 amperes, same as No. 4025, but with extra heavy terminals at fuse end for No. 4 wire	25	195	1.55

Enclosed Fuse Type.

No. 4030. D. P., S. T., 30 amperes, for use where wires enter top of building	25		$1.15
No. 4032. D. P., S. T., 30 amperes, for use where wires enter basement	25		1.15
No. 4031. T. P., S. T., 30 amperes, for use where wires enter top of building	25		1.75
No. 4033. T. P., S. T., 30 amperes, for use where wires enter basement	25		1.15
No. 5150. D. P., S. T., 60 amperes, for use where wires enter top of building	10		1.95
No. 5151. D. P., S. T., 60 amperes, for use where wires enter basement	10		1.95
No. 5152. T. P., S. T., 60 amperes, for use where wires enter top of building	5		2.80
No. 5153. T. P., S. T., 60 amperes, for use where wires enter basement	5		2.80

SWITCHES, Cut-Out (see Switches, combination, and Cut-Outs, Edison plug).

SWITCHES, Door.

Eco Door Switch.

Automatically lights and extinguishes an electric lamp in closets, telephone booths, etc., in such a manner that the light is turned on only when it is needed, as follows:

Door shut — light off.
,, open — light on.
,, shut (person inside) — light still on.
,, open to go out — light off.
,, shut — light remains off.

No. 174. Eco door switch, 5 amps., 110 volts.....each, $3.10

Lüngen Door Switch.

Style A.

Turns the light on when door is open, and off when it is shut.

No. 175A. Lüngen switch.....each, $2.40

Style B.

Turns the light on when door is shut, and off when it is open.

No. 175B. Lüngen switch.....each, $2.40

" Diamond H " Door Switch.

This switch is thoroughly insulated with sheet mica and has a quick, positive action when the plunger is pressed or released. A cold rolled steel case is used, in place of the ordinary porcelain base, and the switch is practically indestructible.

No. 601. Light " on " when door is open.....each, $2.50
,, 602. Light " off " when door is open..... ,, 2.50
Steel case for above, to take flexible conduit or iron pipe.....each, .30



Equalizer Switch and Pedestal.

SWITCHES, Entrance (see Switches, combination, and Switches, service).

SWITCHES, Equalizer.

Hill Equalizer Switches.

Marble bases, 50 cts. extra, net. Single break, 600 volts, 25 per cent extra. Plain finish, 10 per cent reduction.

Cast iron pedestals, without switch, $25.75 each, list, black finish.

Weight, without switch, 100 pounds.

	Weight.	Price, Single Break, 250 Volts.	Amps.	Price, Quick Break, 600 Volts.	Weight.	No.
No. 41407.	9	$6.65	300	$10.90	16	41414
,, 41408.	16	8.60	400	13.25	20	41415
,, 41409.	23	10.15	500	16.40	25	41416
,, 41410.	26	11.30	600	18.00	30	41417
,, 41411.	29	15.60	800	25.00	34	41418
,, 41412.	33	22.60	1000	35.10	37	41419
,, 41413.	38	43.70	1250	68.00	43	41420

SWITCHES, Gas Engine.



No. S-2250.

Atwater-Kent Gas Engine Switch.

All connections can be made after the switch is mounted on the dash, and the whole is then covered by the name plate.

The handle end of the lever is provided with notches to keep the lever in the position in which it is intended to stay.

Handle can be easily thrown, even with glove on.

No. S-2250. Complete with name plate cover.....each, $2.00



No. 974.

Bryant Baby Switch

(see Switches, knife, for other styles).

These porcelain base baby switches, formerly used as electric light switches, but no longer considered large enough for that purpose, are now largely used as gas engine switches.

	Amps.		
No. 974.	15	D. P., S. T., porcelain base switch ....each,	$ .42
,, 1041.	15	D. P., D. T., ,, ,, ,, ... ,,	.74



Type L.

Connecticut Gas Engine Switches.

Type L.

This switch is of the lock type, with a removable lever which can be carried in the pocket. It is made up in a most substantial manner and is supplied in natural brass finish. The lever proper is made of a special grade of spring bronze, ensuring positive contacts.

The back edge is fitted with a soft rubber gasket so that water cannot run down in back and cause a partial short circuit which so often occurs. Arranged to throw in either set of batteries.

Type L. Connecticut switch.....each, $1.25



Type P.

Type P.

This switch is the acme of perfection in plug switches, and is made so that rain water cannot run or drive into the sockets, thus causing trouble. A soft rubber gasket mounted in the back makes it absolutely water-tight. In the regular stock type the centre hole is used as a holder for the plug when not in use.

The Connecticut coil current indicator can be used with this switch. (See Indicator, current.)

Type P. Connecticut plug switch.....each, $1.25



No. 4.

K. H. Gas Engine Switch No. 4.

A very quick action switch, as the distance from one side to the other is small. It will not, therefore, cause miss-fire.

No. 4. Double throw switch.....each, $ .75



No. 5.

K. H. Fibre Base Switches.

No. 3.	Single throw switch.....each,	$	.20
,, 5.	Double ,, ,, ... ,,		.30



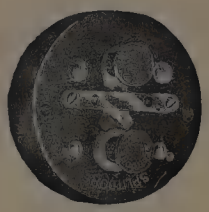
Maclet Switch.

SWITCHES, Gas Engine (Continued).

The Maclet Gas Engine Switch.

The Maclet is the *only* switch for automobiles on the market which has a removable lever, and, at the same time, a spring device for keeping the lever off the contacts when the contact is once broken — thus obviating the familiar annoyance of having the lever fall back and make connection after removing it from the contact point. The wire attached to the lever makes contact *behind* the switch, while the other contacts are outside, thus precluding the possibility of meddlers starting up the engine.

No. 1. Maclet, 2½ in. diam., ½ in. thick.....each, $1.00
,, 2. ,, 3 ,, ,, ¾ ,, ,, ... ,, 1.50



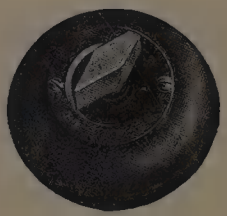
No. S-2270.

Splitdorf Gas Engine Switch.

The lever of this switch remains mounted on the switch, but the plug connecting the lever with the contacts on the back is removable so that engine cannot be started until plug is inserted.

It is a two-point switch for use with two sets of batteries, or battery and igniter, etc.

No. S-2270. Cut-out switch, complete.....each, $1.00



Heinze Rosette Switch.

Heinze Rosette Switches.

Made of hard rubber composition, about 3½ inches in diameter. It will operate two sets of batteries and the handle indicates which set is in use.

No. S-2275. Heinze Rosette switch.....each, $1.75
,, S-2276. Switch plug only..... ,, .25



S. M. Switch.

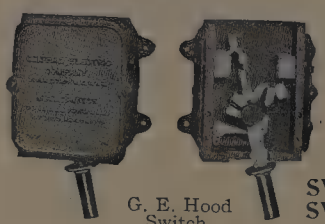
S. M. Economy Switch.

This switch is a 4-point switch and is arranged to work four ways. Switching on first point — one set of batteries; switching on second point — second set of batteries; switching on third point — both sets in multiple series; switching on fourth or last point — two sets in series. The fourth or last point is not required until after the batteries fail to operate from the third point.

When your engine starts to miss on the third or multiple connection, your batteries have dropped from 1.4 volts to about .75 volt per cell; by moving the lever on the last or series connection, you will be able to continue operation of engine and get from one-third to one-fourth more service out of your batteries than when operating them in single sets.

Wiring directions go with each switch, showing how to wire for 1- to 4-cyl. engine.

No. S-2280. Economy switch.....each, $2.00



G. E. Hood Switch.

SWITCHES, Heater (see Switches, snap, 500-volt).
SWITCHES, High Insulation (see Cut-Outs, arc).
SWITCHES, Hood.

G. E. Hood Switch, Type MS8.

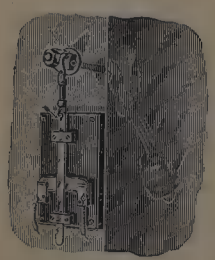
A small, compact and reliable hood switch for car equipments not exceeding 200 horse-power.

Entirely enclosed in metal case to prevent accidental contact with live parts.

Wiping contacts, magnetic blow-out, and quick make and break with wide gap at contacts.

No. 36881. Hood switch complete.....each, $16.00

SWITCH, Ice Chest.



Ice Chest Switch.

Ice Chest Switch.

Connected to door handle. No springs to get out of order. Gravity break to prevent arcing.....each, $4.00

SWITCHES, Illuminating (see Flashers).
SWITCHES, Key (See Switches, socket).
SWITCHES, Key-Arm.



Noscru " Key-Arm Switch.

" Noscru " Key-Arm Switch.

The smallest arm switch made. Quick make and quick break. Furnished with or without brass shell.

No. S-2285. With brass shell and fibre cap.....each, $1.50
,, S-2286. With fibre cap only..... ,, 1.20
,, S-2287. Key only..... ,, .25

SWITCHES, Knife.

Bryant Baby Knife Switches, 125 Volt.

Porcelain base. National Electrical Code Standard.



No. 1436.

	Std. Pkg.	Each.
Single Pole — Porcelain Base.		
No. 1436. 15 amps., S. P., S. T. switch	100	$ .34
,, 1437. 25 ,, ,, ,, ,,	100	.44
,, 1454. 15 ,, ,, D. T. ,,	100	.60
,, 1455. 25 ,, ,, ,, ,,	100	.74
Single Pole — Unmounted.		
No. 1442. 15 amps., S. P., S. T. switch	100	$ .34
,, 1443. 25 ,, ,, ,, ,,	100	.44
,, 1448. 15 ,, ,, ,, ,, fusible	100	.40
,, 1449. 25 ,, ,, ,, ,, ,,	100	.51
,, 1460. 15 ,, ,, D. T. ,,	100	.60
,, 1461. 25 ,, ,, ,, ,,	100	.74
,, 1466. 15 ,, ,, ,, ,, fusible	100	.72
,, 1467. 25 ,, ,, ,, ,, ,,	100	.88
Double Pole — Porcelain Base.		
No. 1438. 15 amps., D. P., S. T. switch	250	$ .42
,, 1439. 25 ,, ,, ,, ,,	250	.50
,, 1456. 15 ,, ,, D. T. ,,	100	.74
,, 1457. 25 ,, ,, ,, ,,	100	.90
Double Pole — Unmounted.		
No. 1444. 15 amps., D. P., S. T. switch	250	$ .42
,, 1445. 25 ,, ,, ,, ,,	250	.50
,, 1450. 15 ,, ,, ,, ,, fusible	250	.54
,, 1451. 25 ,, ,, ,, ,, ,,	250	.64
,, 1462. 15 ,, ,, D. T. ,,	100	.74
,, 1463. 25 ,, ,, ,, ,,	100	.90
,, 1468. 15 ,, ,, ,, ,, fusible	100	.98
,, 1469. 25 ,, ,, ,, ,, ,,	100	1.18
Triple Pole — Porcelain Base.		
No. 1440. 15 amps., T. P., S. T. switch	25	$ .90
,, 1441. 25 ,, ,, ,, ,,	25	1.10
Triple Pole — Unmounted.		
No. 1446. 15 amps., T. P., S. T. switch	25	$ .90
,, 1447. 25 ,, ,, ,, ,,	25	1.10
,, 1452. 15 ,, ,, ,, ,, fusible	25	1.08
,, 1453. 25 ,, ,, ,, ,, ,,	25	1.31
,, 1464. 15 ,, ,, D. T. ,,	10	1.20
,, 1465. 25 ,, ,, ,, ,,	10	1.40
,, 1470. 15 ,, ,, ,, ,, fusible	10	1.56
,, 1471. 25 ,, ,, ,, ,, ,,	10	1.82
Single Pole — Slate Base.		
No. 1636. 15 amps., S. P., S. T. switch	100	$ .40
,, 1637. 25 ,, ,, ,, ,,	100	.50
,, 1654. 15 ,, ,, D. T. ,,	100	.68
,, 1655. 25 ,, ,, ,, ,,	100	.84
Single Pole — Unmounted.		
No. 1642. 15 amps., S. P., S. T. switch	100	$ .40
,, 1643. 25 ,, ,, ,, ,,	100	.50
,, 1648. 15 ,, ,, ,, ,, fusible	25	.46
,, 1649. 25 ,, ,, ,, ,, ,,	25	.57
,, 1660. 15 ,, ,, D. T. ,,	100	.68
,, 1661. 25 ,, ,, ,, ,,	100	.84
,, 1666. 15 ,, ,, ,, ,, fusible	100	.80
,, 1667. 25 ,, ,, ,, ,, ,,	100	.98
Double Pole — Slate Base.		
No. 1638. 15 amps., D. P., S. T. switch	250	$ .50
,, 1639. 25 ,, ,, ,, ,,	250	.60
,, 1656. 15 ,, ,, D. T. ,,	100	.86
,, 1657. 25 ,, ,, ,, ,,	100	1.04
Double Pole — Unmounted.		
No. 1644. 15 amps., D. P., S. T. switch	250	$ .50
,, 1645. 25 ,, ,, ,, ,,	250	.60
,, 1650. 15 ,, ,, ,, ,, fusible	250	.62
,, 1651. 25 ,, ,, ,, ,, ,,	250	.74
,, 1662. 15 ,, ,, D. T. ,,	100	.86
,, 1663. 25 ,, ,, ,, ,,	100	1.04
,, 1668. 15 ,, ,, ,, ,, fusible	100	1.10
,, 1669. 25 ,, ,, ,, ,, ,,	100	1.32



No. 1438.



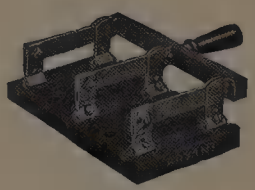
No. 1440.



No. 1636.



No. 1638.



No. 1640.

SWITCHES, Knife.

Bryant Baby Knife Switches, 125 Volt (Continued).

Porcelain base. National Electrical Code Standard.

		Std. Pkg.	Each.
Triple Pole — Slate Base.			
No. 1640.	15 amps., T. P., S. T. switch.....	25	$1.04
,, 1641.	25 ,, ,, ,, ,, ...	25	1.30
,, 1658.	15 ,, ,, D. T. ,, ...	10	1.40
,, 1659.	25 ,, ,, ,, ,, ...	10	1.64
Triple Pole — Unmounted.			
No. 1646.	15 amps., T. P., S. T. switch.....	25	$1.04
,, 1647.	25 ,, ,, ,, ,, ...	25	1.30
,, 1652.	15 ,, ,, ,, ,, fusible,	25	1.22
,, 1653.	25 ,, ,, ,, ,, ,,	25	1.51
,, 1664.	15 ,, ,, D. T. ,, ...	10	1.40
,, 1665.	25 ,, ,, ,, ,, ...	10	1.64
,, 1670.	15 ,, ,, ,, ,, fusible,	10	1.76
,, 1671.	25 ,, ,, ,, ,, ,,	10	2.06

Hill Style A Switches, 250 Volt.

Plain switches are listed. Polished switches, 30 per cent extra.

Six hundred volt switches, 25 per cent extra. Back connection switches, 10 per cent extra.

National Electrical Code Standard.

Fuses not included in price.



S. P., S. T., without Fuse.

Single Pole, Single Throw.

Without Fuse.			
No. 38968.	30 amps., weight	3 lbs.....each,	$2.35
,, 38969.	60 ,, ,,	4 ,, ... ,,	3.10
,, 38970.	100 ,, ,,	5 ,, ... ,,	4.70
,, 38971.	200 ,, ,,	8 ,, ... ,,	6.25
,, 38972.	300 ,, ,,	11 ,, ... ,,	9.75
,, 38973.	400 ,, ,,	20 ,, ... ,,	12.25
,, 38974.	500 ,, ,,	29 ,, ... ,,	14.65
,, 38975.	600 ,, ,,	36 ,, ... ,,	16.10
,, 38976.	800 ,, ,,	41 ,, ... ,,	22.70
,, 38977.	1000 ,, ,,	47 ,, ... ,,	32.50
,, 38978.	1250 ,, ,,	52 ,, ... ,,	51.00
With Fuse Connections.			
No. 38979.	30 amps., weight	4 lbs.....each,	$3.85
,, 38980.	60 ,, ,,	8 ,, ... ,,	5.15
,, 38981.	100 ,, ,,	10 ,, ... ,,	7.70
,, 38982.	200 ,, ,,	15 ,, ... ,,	10.30
,, 38983.	300 ,, ,,	22 ,, ... ,,	16.10
,, 38984.	400 ,, ,,	31 ,, ... ,,	20.30
,, 38985.	500 ,, ,,	51 ,, ... ,,	24.10
,, 38986.	600 ,, ,,	61 ,, ... ,,	26.70



S. P., D. T. without Fuse.

Single Pole, Double Throw.

Without Fuse.			
No. 38987.	30 amps., weight	5 lbs.....each,	$3.50
,, 38988.	60 ,, ,,	8 ,, ... ,,	4.70
,, 38989.	100 ,, ,,	9 ,, ... ,,	7.00
,, 38990.	200 ,, ,,	13 ,, ... ,,	9.35
,, 38991.	300 ,, ,,	18 ,, ... ,,	14.65
,, 38992.	400 ,, ,,	26 ,, ... ,,	18.55
,, 38993.	500 ,, ,,	36 ,, ... ,,	22.00
,, 38994.	600 ,, ,,	47 ,, ... ,,	24.40
,, 38995.	800 ,, ,,	70 ,, ... ,,	34.15
,, 38996.	1000 ,, ,,	80 ,, ... ,,	48.80
,, 38997.	1250 ,, ,,	92 ,, ... ,,	76.50
With Fuse Connections.			
No. 38998.	30 amps., weight	8 lbs.....each,	$5.80
,, 38999.	60 ,, ,,	11 ,, ... ,,	7.70
,, 39000.	100 ,, ,,	13 ,, ... ,,	11.60
,, 39001.	200 ,, ,,	19 ,, ... ,,	15.40
,, 39002.	300 ,, ,,	26 ,, ... ,,	24.20
,, 39003.	400 ,, ,,	39 ,, ... ,,	30.60
,, 39004.	500 ,, ,,	52 ,, ... ,,	36.20
,, 39005.	600 ,, ,,	69 ,, ... ,,	40.30

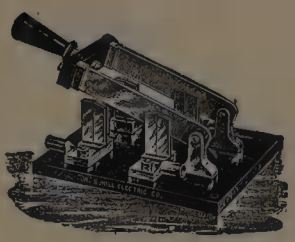
SWITCHES, Knife.

Hill Style A Switches, 250 Volt (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. Six hundred volt switches, 25 per cent extra. Back connection switches, 10 per cent extra.

National Electrical Code Standard.

Fuses not included in price.



D. P., S. T., without Fuse.

Without Fuse. *Double Pole, Single Throw.*

No. 39006.	30 amps.,	weight	4 lbs.	each,	$3.50
,, 39007.	60 ,,	,,	8 ,,	,,	4.70
,, 39008.	100 ,,	,,	9 ,,	,,	7.00
,, 39009.	200 ,,	,,	13 ,,	,,	9.35
,, 39010.	300 ,,	,,	17 ,,	,,	14.65
,, 39011.	400 ,,	,,	26 ,,	,,	18.55
,, 39012.	500 ,,	,,	36 ,,	,,	22.00
,, 39013.	600 ,,	,,	47 ,,	,,	24.40
,, 39014.	800 ,,	,,	60 ,,	,,	34.20
,, 39015.	1000 ,,	,,	71 ,,	,,	48.80
,, 39016.	1250 ,,	,,	80 ,,	,,	76.50

With Fuse Connections.

No. 39017.	30 amps.,	weight	8 lbs.	each,	$5.80
,, 39018.	60 ,,	,,	15 ,,	,,	7.70
,, 39019.	100 ,,	,,	19 ,,	,,	11.60
,, 39020.	200 ,,	,,	23 ,,	,,	15.40
,, 39021.	300 ,,	,,	26 ,,	,,	24.20
,, 39022.	400 ,,	,,	37 ,,	,,	30.60
,, 39023.	500 ,,	,,	52 ,,	,,	36.20
,, 39024.	600 ,,	,,	69 ,,	,,	40.30



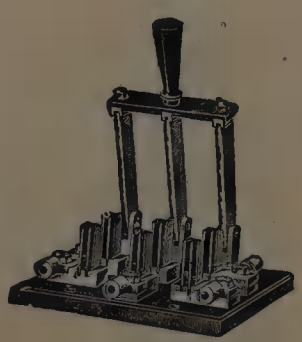
D. P., D. T., without Fuse.

Without Fuse. *Double Pole, Double Throw.*

No. 39025.	30 amps.,	weight	9 lbs.	each,	$5.25
,, 39026.	60 ,,	,,	17 ,,	,,	7.00
,, 39027.	100 ,,	,,	20 ,,	,,	10.55
,, 39028.	200 ,,	,,	24 ,,	,,	14.00
,, 39029.	300 ,,	,,	31 ,,	,,	22.00
,, 39030.	400 ,,	,,	41 ,,	,,	27.80
,, 39031.	500 ,,	,,	53 ,,	,,	32.90
,, 39032.	600 ,,	,,	65 ,,	,,	36.60
,, 39033.	800 ,,	,,	75 ,,	,,	51.20
,, 39034.	1000 ,,	,,	86 ,,	,,	73.10
,, 39035.	1250 ,,	,,	95 ,,	,,	114.70

With Fuse Connections.

No. 39036.	30 amps.,	weight	11 lbs.	each,	$8.70
,, 39037.	60 ,,	,,	22 ,,	,,	11.60
,, 39038.	100 ,,	,,	27 ,,	,,	17.40
,, 39039.	200 ,,	,,	34 ,,	,,	23.10
,, 39040.	300 ,,	,,	39 ,,	,,	36.20
,, 39041.	400 ,,	,,	56 ,,	,,	45.90
,, 39042.	500 ,,	,,	79 ,,	,,	54.00
,, 39043.	600 ,,	,,	94 ,,	,,	60.00



T. P., S. T., without Fuse.

Without Fuse. *Three Pole, Single Throw.*

No. 39044.	30 amps.,	weight	6 lbs.	each,	$5.25
,, 39045.	60 ,,	,,	11 ,,	,,	7.00
,, 39046.	100 ,,	,,	15 ,,	,,	10.55
,, 39047.	200 ,,	,,	21 ,,	,,	14.00
,, 39048.	300 ,,	,,	26 ,,	,,	22.00
,, 39049.	400 ,,	,,	39 ,,	,,	27.80
,, 39050.	500 ,,	,,	52 ,,	,,	32.90
,, 39051.	600 ,,	,,	69 ,,	,,	36.60
,, 39052.	800 ,,	,,	90 ,,	,,	51.20
,, 39053.	1000 ,,	,,	106 ,,	,,	73.70
,, 39054.	1250 ,,	,,	120 ,,	,,	114.70

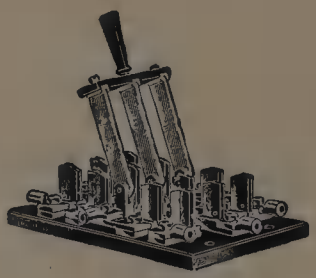
With Fuse Connections.

No. 39055.	30 amps.,	weight	11 lbs.	each,	$8.70
,, 39056.	60 ,,	,,	22 ,,	,,	11.60
,, 39057.	100 ,,	,,	27 ,,	,,	17.40
,, 39058.	200 ,,	,,	34 ,,	,,	23.10
,, 39059.	300 ,,	,,	39 ,,	,,	36.20
,, 39060.	400 ,,	,,	56 ,,	,,	45.90
,, 39061.	500 ,,	,,	79 ,,	,,	54.00
,, 39062.	600 ,,	,,	102 ,,	,,	60.00

SWITCHES, Knife.

Hill Style A Switches, 250 Volt
(Continued).

Plain switches are listed. Polished switches, 30 per cent extra. Six hundred volt switches, 25 per cent extra. Back connection switches, 10 per cent extra.
National Electrical Code Standard.
Fuses not included in price.



T. P., D. T., without Fuse.

Three Pole, Double Throw.

Without Fuse.

No. 39063.	30	amps.,	weight	14	lbs. ..... each,	$7.90
,, 39064.	60	,,	,,	26	,, ... ,,	10.55
,, 39065.	100	,,	,,	31	,, ... ,,	15.80
,, 39066.	200	,,	,,	37	,, ... ,,	21.00
,, 39067.	300	,,	,,	47	,, ... ,,	32.90
,, 39068.	400	,,	,,	61	,, ... ,,	41.70
,, 39069.	500	,,	,,	86	,, ... ,,	49.30
,, 39070.	600	,,	,,	97	,, ... ,,	54.90
,, 39071.	800	,,	,,	112	,, ... ,,	76.80
,, 39072.	1000	,,	,,	129	,, ... ,,	109.70
,, 39073.	1250	,,	,,	140	,, ... ,,	172.00

With Fuse Connections.

No. 39074.	30	amps.,	weight	17	lbs. ..... each,	$14.90
,, 39075.	60	,,	,,	34	,, ... ,,	19.75
,, 39076.	100	,,	,,	41	,, ... ,,	29.60
,, 39077.	200	,,	,,	51	,, ... ,,	39.90
,, 39078.	300	,,	,,	57	,, ... ,,	62.00
,, 39079.	400	,,	,,	84	,, ... ,,	78.00
,, 39080.	500	,,	,,	117	,, ... ,,	93.00
,, 39081.	600	,,	,,	140	,, ... ,,	103.00

Hill Style B Switches, 250 Volt.

Plain switches are listed. Polished switches, 30 per cent extra.
National Electrical Code Standard.
Fuses not included in price.



S. P., S. T., without Fuse.

Single Pole, Single Throw.

Without Fuse.

No. 39082.	30	amps.,	weight	2	lbs. ..... each,	$1.55
,, 39083.	60	,,	,,	3	,, ... ,,	2.00
,, 39084.	100	,,	,,	4	,, ... ,,	3.10
,, 39085.	200	,,	,,	6	,, ... ,,	4.15
,, 39086.	300	,,	,,	9	,, ... ,,	6.50
,, 39087.	400	,,	,,	16	,, ... ,,	8.00
,, 39088.	500	,,	,,	23	,, ... ,,	9.75
,, 39089.	600	,,	,,	26	,, ... ,,	10.85
,, 39090.	800	,,	,,	29	,, ... ,,	15.20
,, 39091.	1000	,,	,,	33	,, ... ,,	21.70
,, 39092.	1250	,,	,,	38	,, ... ,,	34.00
,, 39093.	1750	,,	,,	42	,, ... ,,	50.00
,, 39094.	2000	,,	,,	46	,, ... ,,	68.00
,, 39095.	3000	,,	,,	69	,, ... ,,	125.00
,, 39096.	4000	,,	,,	92	,, ... ,,	191.00

With Fuse Connections.

No. 39097.	30	amps.,	weight	3	lbs. ..... each,	$2.50
,, 39098.	60	,,	,,	6	,, ... ,,	3.30
,, 39099.	100	,,	,,	8	,, ... ,,	5.00
,, 39100.	200	,,	,,	12	,, ... ,,	6.70
,, 39101.	300	,,	,,	18	,, ... ,,	10.40
,, 39102.	400	,,	,,	25	,, ... ,,	12.75
,, 39103.	500	,,	,,	41	,, ... ,,	15.60
,, 39104.	600	,,	,,	49	,, ... ,,	17.30

SWITCHES, Knife.

Hill Style D Switches, 250 Volt (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in the price.



S. P., D. T., without Fuse.

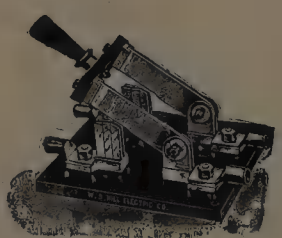
Single Pole, Double Throw.

Without Fuse.

No.	39105.	30	amps.,	weight	4 lbs.	each, $2.35
,,	39106.	60	,,	,,	6 ,,	,, 3.10
,,	39107.	100	,,	,,	7 ,,	,, 4.70
,,	39108.	200	,,	,,	10 ,,	,, 6.25
,,	39109.	300	,,	,,	14 ,,	,, 9.75
,,	39110.	400	,,	,,	21 ,,	,, 12.30
,,	39111.	500	,,	,,	29 ,,	,, 14.65
,,	39112.	600	,,	,,	38 ,,	,, 16.40
,,	39113.	800	,,	,,	47 ,,	,, 22.80
,,	39114.	1000	,,	,,	56 ,,	,, 32.60
,,	39115.	1250	,,	,,	64 ,,	,, 51.00
,,	39116.	1750	,,	,,	74 ,,	,, 76.00
,,	39117.	2000	,,	,,	97 ,,	,, 101.00
,,	39118.	3000	,,	,,	145 ,,	,, 187.00
,,	39119.	4000	,,	,,	194 ,,	,, 285.00

With Fuse Connections.

No.	39120.	30	amps.,	weight	6 lbs.	each, $3.75
,,	39121.	60	,,	,,	9 ,,	,, 5.00
,,	39122.	100	,,	,,	10 ,,	,, 7.80
,,	39123.	200	,,	,,	15 ,,	,, 10.00
,,	39124.	300	,,	,,	21 ,,	,, 15.60
,,	39125.	400	,,	,,	31 ,,	,, 20.00
,,	39126.	500	,,	,,	42 ,,	,, 23.40
,,	39127.	600	,,	,,	55 ,,	,, 26.20



D. P., S. T., without Fuse.

Double Pole, Single Throw.

Without Fuse.

No.	39128.	30	amps.,	weight	3 lbs.	each, $2.35
,,	39129.	60	,,	,,	6 ,,	,, 3.10
,,	39130.	100	,,	,,	7 ,,	,, 4.70
,,	39131.	200	,,	,,	10 ,,	,, 6.25
,,	39132.	300	,,	,,	14 ,,	,, 9.75
,,	39133.	400	,,	,,	21 ,,	,, 12.30
,,	39134.	500	,,	,,	29 ,,	,, 14.65
,,	39135.	600	,,	,,	38 ,,	,, 16.40
,,	39136.	800	,,	,,	48 ,,	,, 22.80
,,	39137.	1000	,,	,,	57 ,,	,, 32.60
,,	39138.	1250	,,	,,	64 ,,	,, 51.00
,,	39139.	1750	,,	,,	75 ,,	,, 76.00
,,	39140.	2000	,,	,,	94 ,,	,, 101.00
,,	39141.	3000	,,	,,	141 ,,	,, 187.00
,,	39142.	4000	,,	,,	188 ,,	,, 285.00

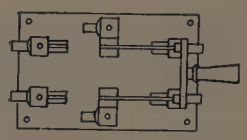
With Fuse Connections.

No.	39143.	30	amps.,	weight	6 lbs.	each, $3.75
,,	39144.	60	,,	,,	12 ,,	,, 5.00
,,	39145.	100	,,	,,	15 ,,	,, 7.80
,,	39146.	200	,,	,,	18 ,,	,, 10.00
,,	39147.	300	,,	,,	21 ,,	,, 15.60
,,	39148.	400	,,	,,	30 ,,	,, 20.00
,,	39149.	500	,,	,,	42 ,,	,, 23.40
,,	39150.	600	,,	,,	55 ,,	,, 26.20

SWITCHES, Knife.

Hill Style B Switches, 250 Volt (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in the price.



D. P., D. T., without Fuse.

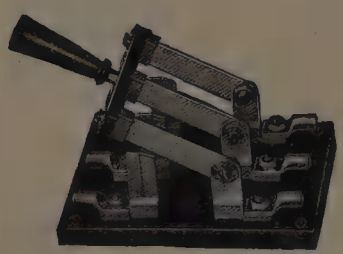
Double Pole, Double Throw.

Without Fuse.

No.	39151.	30 amps.,	weight	7 lbs.	each,	$3.50
,,	39152.	60 ,,	,,	14 ,,	,,	4.70
,,	39153.	100 ,,	,,	16 ,,	,,	7.00
,,	39154.	200 ,,	,,	19 ,,	,,	9.35
,,	39155.	300 ,,	,,	25 ,,	,,	14.65
,,	39156.	400 ,,	,,	33 ,,	,,	18.50
,,	39157.	500 ,,	,,	43 ,,	,,	21.95
,,	39158.	600 ,,	,,	52 ,,	,,	24.40
,,	39159.	800 ,,	,,	60 ,,	,,	34.10
,,	39160.	1000 ,,	,,	69 ,,	,,	48.70
,,	39161.	1250 ,,	,,	76 ,,	,,	76.00
,,	39162.	1750 ,,	,,	87 ,,	,,	114.00
,,	39163.	2000 ,,	,,	97 ,,	,,	152.00
,,	39164.	3000 ,,	,,	145 ,,	,,	281.00
,,	39165.	4000 ,,	,,	194 ,,	,,	429.00

With Fuse Connections.

No.	39166.	30 amps.,	weight	9 lbs.	each,	$5.60
,,	39167.	60 ,,	,,	18 ,,	,,	7.50
,,	39168.	100 ,,	,,	22 ,,	,,	11.20
,,	39169.	200 ,,	,,	27 ,,	,,	15.00
,,	39170.	300 ,,	,,	31 ,,	,,	23.40
,,	39171.	400 ,,	,,	45 ,,	,,	29.70
,,	39172.	500 ,,	,,	63 ,,	,,	35.10
,,	39173.	600 ,,	,,	75 ,,	,,	39.00



T. P., S. T., without Fuse.

Three Pole, Single Throw.

Without Fuse.

No.	39175.	30 amps.,	weight	5 lbs.	each,	$3.50
,,	39176.	60 ,,	,,	9 ,,	,,	4.70
,,	39177.	100 ,,	,,	12 ,,	,,	7.00
,,	39178.	200 ,,	,,	17 ,,	,,	9.35
,,	39179.	300 ,,	,,	21 ,,	,,	14.65
,,	39180.	400 ,,	,,	31 ,,	,,	18.50
,,	39181.	500 ,,	,,	42 ,,	,,	22.00
,,	39182.	600 ,,	,,	55 ,,	,,	24.40
,,	39183.	800 ,,	,,	72 ,,	,,	34.10
,,	39186.	1000 ,,	,,	85 ,,	,,	48.70
,,	39189.	1250 ,,	,,	96 ,,	,,	76.00
,,	39190.	1750 ,,	,,	112 ,,	,,	114.00
,,	39191.	2000 ,,	,,	127 ,,	,,	152.00
,,	39192.	3000 ,,	,,	190 ,,	,,	281.00
,,	39193.	4000 ,,	,,	254 ,,	,,	429.00

With Fuse Connections.

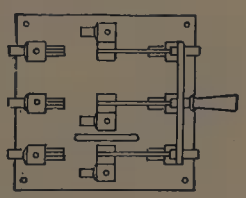
No.	39194.	30 amps.,	weight	9 lbs.	each,	$5.60
,,	39195.	60 ,,	,,	18 ,,	,,	7.50
,,	39196.	100 ,,	,,	22 ,,	,,	11.20
,,	39197.	200 ,,	,,	27 ,,	,,	15.00
,,	39198.	300 ,,	,,	31 ,,	,,	23.40
,,	39199.	400 ,,	,,	45 ,,	,,	29.70
,,	39200.	500 ,,	,,	63 ,,	,,	35.10
,,	39201.	600 ,,	,,	82 ,,	,,	39.00

SWITCHES, Knife.

Hill Style B Switches, 250 Volt (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in the price.

Three Pole, Double Throw.



T. P., D. T., without Fuse.

Without Fuse.

No.	39202.	30 amps.,	weight	11 lbs.	each,	$5.25
,,	39203.	60 ,,	,,	21 ,,	,,	7.00
,,	39204.	100 ,,	,,	25 ,,	,,	10.55
,,	39205.	200 ,,	,,	30 ,,	,,	14.00
,,	39206.	300 ,,	,,	38 ,,	,,	21.90
,,	39207.	400 ,,	,,	49 ,,	,,	27.80
,,	39208.	500 ,,	,,	69 ,,	,,	32.90
,,	39209.	600 ,,	,,	78 ,,	,,	36.55
,,	39210.	800 ,,	,,	90 ,,	,,	51.00
,,	39211.	1000 ,,	,,	103 ,,	,,	73.00
,,	39212.	1250 ,,	,,	112 ,,	,,	115.00
,,	39213.	1750 ,,	,,	130 ,,	,,	171.00
,,	39217.	2000 ,,	,,	145 ,,	,,	228.00
,,	39219.	3000 ,,	,,	217 ,,	,,	421.00
,,	39220.	4000 ,,	,,	290 ,,	,,	643.00

With Fuse Connections.

No.	39223.	30 amps.,	weight	14 lbs.	each,	$9.20
,,	39224.	60 ,,	,,	27 ,,	,,	12.25
,,	39225.	100 ,,	,,	33 ,,	,,	18.45
,,	39226.	200 ,,	,,	41 ,,	,,	24.60
,,	39227.	300 ,,	,,	46 ,,	,,	38.40
,,	39232.	400 ,,	,,	67 ,,	,,	48.60
,,	39233.	500 ,,	,,	94 ,,	,,	58.00
	39234.	600 ,,	,,	112 ,,	,,	64.00

Hill Style B Switches, 600 Volt.

Single Pole, Single Throw.



S. P., S. T., without Fuse.

Without Fuse.

No.	42588.	60 amps.,	weight	8 lbs.	each,	$2.60
,,	42589.	100 ,,	,,	10 ,,	,,	3.85
,,	42590.	200 ,,	,,	13 ,,	,,	5.20
,,	42591.	300 ,,	,,	16 ,,	,,	8.10
,,	42592.	400 ,,	,,	20 ,,	,,	10.00
,,	42593.	500 ,,	,,	25 ,,	,,	12.20
,,	42594.	600 ,,	,,	30 ,,	,,	13.55
,,	42595.	800 ,,	,,	34 ,,	,,	19.00
,,	42596.	1000 ,,	,,	37 ,,	,,	27.00
,,	42597.	1250 ,,	,,	43 ,,	,,	42.50
,,	42598.	1750 ,,	,,	48 ,,	,,	63.00
,,	42599.	2000 ,,	,,	60 ,,	,,	85.00
,,	42600.	3000 ,,	,,	90 ,,	,,	156.00
,,	42601.	4000 ,,	,,	120 ,,	,,	239.00

With Fuse Connections.

No.	42602.	60 amps.,	weight	12 lbs.	each,	$4.15
,,	42603.	100 ,,	,,	15 ,,	,,	6.15
,,	42604.	200 ,,	,,	18 ,,	,,	8.35
,,	42605.	300 ,,	,,	24 ,,	,,	13.00
,,	42606.	400 ,,	,,	30 ,,	,,	16.00
,,	42607.	500 ,,	,,	38 ,,	,,	19.50
,,	42608.	600 ,,	,,	45 ,,	,,	21.65

SWITCHES. Knife.

Hill Style B Switches, 600 Volt (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in the price.



S. P., D. T., without Fuse.

Single Pole, Double Throw.

Without Fuse.

No.	42609.	60	amps., weight	15	lbs.....each,	$3.90
,,	42610.	100	,, ,,	18	,, ... ,,	5.85
,,	42611.	200	,, ,,	21	,, ... ,,	7.55
,,	42612.	300	,, ,,	27	,, ... ,,	12.20
,,	42613.	400	,, ,,	36	,, ... ,,	15.40
,,	42614.	500	,, ,,	42	,, ... ,,	18.30
,,	42615.	600	,, ,,	48	,, ... ,,	20.50
,,	42616.	800	,, ,,	57	,, ... ,,	28.50
,,	42617.	1000	,, ,,	63	,, ... ,,	40.70
,,	42618.	1250	,, ,,	75	,, ... ,,	63.00
,,	42619.	1750	,, ,,	93	,, ... ,,	95.00
,,	42620.	2000	,, ,,	112	,, ... ,,	127.00
,,	42621.	3000	,, ,,	168	,, ... ,,	234.00
,,	42622.	4000	,, ,,	224	,, ... ,,	356.00

With Fuse Connections.

No.	42623.	60	amps., weight	21	lbs.....each,	$6.25
,,	42624.	100	,, ,,	27	,, ... ,,	9.35
,,	42625.	200	,, ,,	33	,, ... ,,	12.10
,,	42626.	300	,, ,,	42	,, ... ,,	19.50
,,	42627.	400	,, ,,	52	,, ... ,,	24.90
,,	42628.	500	,, ,,	61	,, ... ,,	29.30
,,	42629.	600	,, ,,	72	,, ... ,,	32.80



D. P., S. T., without Fuse.

Double Pole, Single Throw.

Without Fuse.

No.	42447.	60	amps., weight	12	lbs.....each,	$3.90
,,	42448.	100	,, ,,	16	,, ... ,,	5 85
,,	42449.	200	,, ,,	21	,, ... ,,	7.55
,,	42450.	300	,, ,,	29	,, ... ,,	12.20
,,	42451.	400	,, ,,	38	,, ... ,,	15.40
,,	42452.	500	,, ,,	45	,, ... ,,	18.30
,,	42453.	600	,, ,,	55	,, ... ,,	20.50
,,	42454.	800	,, ,,	63	,, ... ,,	28.50
,,	42455.	1000	,, ,,	72	,, ... ,,	40.70
,,	42456.	1250	,, ,,	81	,, ... ,,	63.00
,,	42457.	1750	,, ,,	96	,, ... ,,	95.00
,,	42458.	2000	,, ,,	112	,, ... ,,	127.00
,,	42459.	3000	,, ,,	168	,, ... ,,	234.00
,,	42460.	4000	,, ,,	224	,, ... ,,	356.00

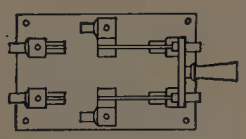
With Fuse Connections.

No.	42461.	60	amps., weight	18	lbs.....each,	$6.25
,,	42462.	100	,, ,,	27	,, ... ,,	9.35
,,	42463.	200	,, ,,	39	,, ... ,,	12.10
,,	42464.	300	,, ,,	48	,, ... ,,	19.50
,,	42465.	400	,, ,,	57	,, ... ,,	24.90
,,	42466.	500	,, ,,	64	,, ... ,,	29.30
,,	42467.	600	,, ,,	75	,, ... ,,	32.80

SWITCHES, Knife.

Hill Style B Switches, 600 Volt (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in price.



D. P., D. T., without Fuse.

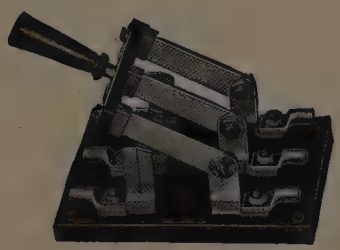
Double Pole, Double Throw.

Without Fuse.

No.	42468.	60	amps., weight	16	lbs.	each,	$5.85
,,	42469.	100	,, ,,	23	,, ...	,,	8.80
,,	42470.	200	,, ,,	29	,, ...	,,	11.70
,,	42471.	300	,, ,,	31	,, ...	,,	18.30
,,	42472.	400	,, ,,	43	,, ...	,,	23.20
,,	42473.	500	,, ,,	60	,, ...	,,	27.40
,,	42474.	600	,, ,,	72	,, ...	,,	30.50
,,	42475.	800	,, ,,	84	,, ...	,,	42.70
,,	42476.	1000	,, ,,	93	,, ...	,,	60.00
,,	42477.	1250	,, ,,	100	,, ...	,,	95.00
,,	42478.	1750	,, ,,	117	,, ...	,,	142.00
,,	42479.	2000	,, ,,	135	,, ...	,,	190.00
,,	42480.	3000	,, ,,	242	,, ...	,,	351.00
,,	42481.	4000	,, ,,	270	,, ...	,,	536.00

With Fuse Connections.

No.	42482.	60	amps., weight	23	lbs.	each,	$9.35
,,	42483.	100	,, ,,	30	,, ...	,,	14.00
,,	42484.	200	,, ,,	42	,, ...	,,	18.70
,,	42485.	300	,, ,,	52	,, ...	,,	29.30
,,	42486.	400	,, ,,	61	,, ...	,,	37.00
,,	42487.	500	,, ,,	69	,, ...	,,	43.90
,,	42488.	600	,, ,,	78	,, ...	,,	49.00



T. P., S. T., without Fuse.

Three Pole, Single Throw,

Without Fuse.

No.	42401.	30	amps., weight	12	lbs.	each,	$4.90
,,	42402.	60	,, ,,	18	,, ...	,,	5.85
,,	42403.	100	,, ,,	23	,, ...	,,	8.80
,,	42404.	200	,, ,,	31	,, ...	,,	11.70
,,	42405.	300	,, ,,	43	,, ...	,,	18.30
,,	42406.	400	,, ,,	57	,, ...	,,	23.20
,,	42407.	500	,, ,,	67	,, ...	,,	27.40
,,	42408.	600	,, ,,	79	,, ...	,,	30.50
,,	42409.	800	,, ,,	94	,, ...	,,	42.70
,,	42410.	1000	,, ,,	108	,, ...	,,	60.00
,,	42411.	1250	,, ,,	121	,, ...	,,	95.00
,,	42412.	1750	,, ,,	144	,, ...	,,	142.00
,,	42413.	2000	,, ,,	167	,, ...	,,	190.00
,,	42414.	3000	,, ,,	250	,, ...	,,	351.00
,,	42415.	4000	,, ,,	334	,, ...	,,	536.00

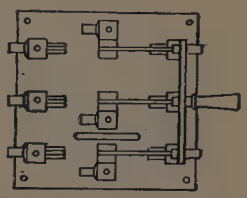
With Fuse Connections.

No.	42416.	30	amps., weight	18	lbs.	each,	$7.80
,,	42417.	60	,, ,,	27	,, ...	,,	9.35
,,	42418.	100	,, ,,	41	,, ...	,,	14.00
,,	42419.	200	,, ,,	58	,, ...	,,	18.70
,,	42420.	300	,, ,,	72	,, ...	,,	29.30
,,	42421.	400	,, ,,	85	,, ...	,,	37.00
,,	42422.	500	,, ,,	96	,, ...	,,	43.90
,,	42423.	600	,, ,,	112	,, ...	,,	49.00

SWITCHES, Knife.

Hill Style B Switches, 600 Volt (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in price.



T. P., D. T.,without Fuse.

Three Pole, Double Throw.

Without Fuse.

No.	42424.	30	amps., weight	17	lbs.	each,	$6.60
,,	42425.	60	,, ,,	25	,, ...		8.80
,,	42426.	100	,, ,,	35	,, ...	,,	13.15
,,	42427.	200	,, ,,	43	,, ...	,,	17.55
,,	42428.	300	,, ,,	48	,, ...	,,	27.40
,,	42429.	400	,, ,,	64	,, ...	,,	34.70
,,	42430.	500	,, ,,	90	,, ...	,,	41.00
,,	42431.	600	,, ,,	108	,, ...	,,	45.70
,,	42432.	800	,, ,,	126	,, ...	,,	64.00
,,	42433.	1000	,, ,,	139	,, ...	,,	91.00
,,	42434.	1250	,, ,,	157	,, ...	,,	144.00
,,	42435.	1750	,, ,,	175	,, ...	,,	213.00
,,	42436.	2000	,, ,,	202	,, ...	,,	285.00
,,	42437.	3000	,, ,,	303	,, ...	,,	526.00
,,	42438.	4000	,, ,,	404	,, ...	,,	804.00

With Fuse Connection.

No.	42439.	30	amps., weight	25	lbs.	each,	$11.50
,,	42440.	60	,, ,,	35	,, ...	,,	15.40
,,	42441.	100	,, ,,	45	,, ...	,,	23.00
,,	42442.	200	,, ,,	63	,, ...	,,	30.70
,,	42443.	300	,, ,,	78	,, ...	,,	48.00
,,	42444.	400	,, ,,	91	,, ...	,,	60.80
,,	42445.	500	,, ,,	103	,, ...	,,	72.00
,,	42446.	600	,, ,,	117	,, ...	,,	80.00

Hill Style B Back Connection Switches.

Polished switches are listed. Plain, 5 per cent reduction. National Electrical Code Standard.



S. P., S. T. Switch.

Single Pole, Single Throw.

250 Volt. List No.	Weight.	List.	Amps.	600 Volt. List.	Weight.	List No.
39235	1	$2.20	30			
39239	2	2.90	60			
39240	3	4.40	100	$5.45	4	41949
39241	4	5.85	200	7.30	7	41950
39242	6	8.60	300	10.70	10	41951
39245	9	10.90	400	13.60	14	41952
39246	12	12.90	500	16.20	17	41953
39247	17	14.30	600	17.85	21	41954
39248	21	20.10	800	25.10	29	41955
39249	29	28.60	1000	35.80	33	41956
39250	33	47.60	1250	59.00	39	41957
39251	39	71.00	1750	88.00	45	41958
39252	45	95.00	2000	119.00	52	41959
39253	67	175.00	3000	218.00	78	41960
39254	90	267.00	4000	334.00	104	41961



S. P., D. T. Switch.

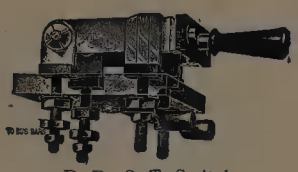
Single Pole, Double Throw.

250 Volt. List No.	Weight.	List.	Amps.	600 Volt. List.	Weight.	List No.
39255	1	$3.30	30			
39256	2	4.40	60			
39257	4	6.55	100	$8.20	6	41962
39258	6	8.75	200	10.90	9	41963
39259	8	12.90	300	16.10	14	41964
39260	10	16.30	400	20.40	16	41965
39261	14	19.30	500	24.10	21	41966
39262	18	21.60	600	27.00	29	41967
39263	24	30.10	800	37.60	33	41968
39264	33	43.00	1000	54.00	39	42993
39265	38	71.00	1250	89.00	45	42994
39266	42	106.00	1750	133.00	52	42995
39267	46	142.00	2000	177.00	60	42996
39268	69	262.00	3000	328.00	90	42997
39269	92	460.00	4000	575.00	120	42998

SWITCHES, Knife.

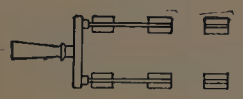
Hill Style B Back Connection Switches (Continued).

Polished switches are listed. Plain, 5 per cent reduction. National Electrical Code Standard.



D. P., S. T. Switch.

250 Volt. List No.	Weight.	*Double Pole, Single Throw.* List.	Amps.	600 Volt. List.	Weight.	List No.
39270	2	$3.30	30			
39271	3	4.40	60			
39272	4	6.55	100	$8.20	8	41881
39273	8	8.75	200	10.90	10	41882
39274	10	12.90	300	16.10	14	41883
39275	14	16.30	400	20.40	18	41907
39276	18	19.30	500	24.10	23	41908
39277	23	21.60	600	27.00	29	41909
39278	29	30.10	800	37.60	36	41910
39279	36	43.00	1000	54.00	45	41911
39280	45	71.00	1250	89.00	52	41912
39281	52	106.00	1750	133.00	63	41913
39282	63	142.00	2000	177.00	75	41914
39283	94	262.00	3000	328.00	112	41915
39284	126	460.00	4000	575.00	150	41916



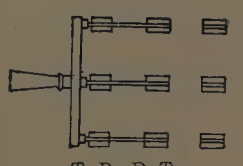
D. P., D. T. Switch.

250 Volt. List No.	Weight.	*Double Pole, Double Throw.* List.	Amps.	600 Volt. List.	Weight.	List No.
39285	3	$4.90	30			
39286	5	6.55	60			
39287	8	9.85	100	$12.30	10	41917
39288	12	13.10	200	17.40	14	41918
39289	15	19.30	300	24.10	18	41919
39290	19	24.50	400	30.60	23	41920
39291	25	29.00	500	36.20	29	41921
39292	33	32.00	600	40.20	38	41922
39293	43	45.00	800	56.00	48	41923
39294	54	64.00	1000	80.00	57	41924
39295	64	114.00	1250	142.00	67	41925
39296	75	159.00	1750	199.00	82	41926
39297	94	213.00	2000	266.00	102	41927
39298	141	393.00	3000	491.00	153	41928
39299	188	601.00	4000	751.00	204	41929



T. P., S. T.

250 Volt. List No.	Weight.	*Three Pole, Single Throw* List.	Amps.	600 Volt. List.	Weight.	List No.
39300	2	$4.90	30			
39301	4	6.55	60			
39302	6	9.85	100	$12.30	10	41855
39303	12	13.10	200	17.40	15	41856
39304	15	19.30	300	24.10	21	41857
39305	21	24.50	400	30.60	27	41858
39306	27	29.00	500	36.20	35	41859
39307	35	32.00	600	40.20	43	41860
39308	43	45.00	800	56.00	54	41861
39309	54	64.00	1000	80.00	67	41862
39310	67	114.00	1250	142.00	79	41863
39311	76	159.00	1750	199.00	93	41864
39312	93	213.00	2000	266.00	112	41865
39313	139	393.00	3000	491.00	168	41866
39314	186	601.00	4000	751.00	224	41867



T. P., D. T.

250 Volt. List No.	Weight.	*Three Pole, Double Throw.* List.	Amps.	600 Volt. List.	Weight.	List No.
39315	3	$7.40	30			
39316	6	9.80	60			
39317	12	14.70	100	$18.40	15	41868
39318	18	19.65	200	24.50	21	41869
39319	23	29.00	300	36.20	27	41870
39320	30	36.70	400	45.90	35	41871
39321	38	43.40	500	54.00	43	41872
39322	49	48.30	600	60.00	55	41873
39325	64	67.00	800	84.00	70	41874
39326	81	96.00	1000	121.00	85	41875
39327	96	160.00	1250	200.00	102	41876
39328	112	239.00	1750	299.00	124	41877
39329	141	317.00	2000	392.00	156	41878
39330	211	589.00	3000	737.00	234	41879
39331	282	900.00	4000	1126.00	312	41880

SWITCHES, Knife (Continued).

Hill Style B Back Connection Fused Switches.

Polished switches are listed. Plain, 5 per cent reduction.

Double throw back connection switches are fused from the hinged contact only when fused on back or from one end only when fused on face.

Switches arranged with fuses on front or back of board at same price. Front type shipped unless specified to the contrary. Fuses not included in the price.

National Electrical Code Standard.

Back connection switches shipped template mounted unless ordered shipped on permanent bases.



S. P., S. T., Fused, Style B. Back Connected.

Single Pole, Single Throw, Fused.

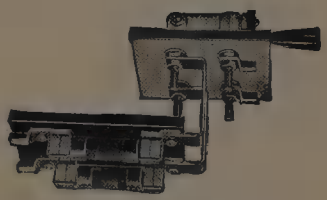
250 Volt. List No.	List.	Amps.	600 Volt. List.	List No.
42385	$2.85	30		
42386	4.00	60		
42387	6.40	100	$7.45	42383
42388	8.85	200	10.30	42384
42389	14.10	300	16.20	41845
42390	16.40	400	19.10	41846
42391	21.40	500	24.70	41847
42392	22.80	600	26.35	41848



D. P., S. T., Fused, Style B. Back Connected. Front of Board Type.

Single Pole, Double Throw, Fused.

250 Volt. List No.	List.	Amps.	600 Volt. List.	List No.
42393	$3.95	30		
42394	5.50	60		
42395	8.55	100	$10.20	41849
42396	11.75	200	13.90	41850
42397	18.40	300	21.60	41851
42398	21.80	400	25.90	41852
42399	27.80	500	32.60	41853
42400	30.10	600	35.50	41854



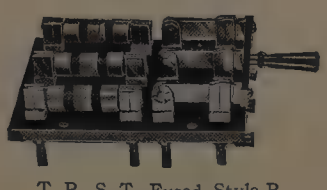
D. P., S. T., Fused, Style B. Back Connected. Back of Board Type.

Double Pole, Single Throw, Fused.

250 Volt. List No.	List.	Amps.	600 Volt. List.	List No.
42678	$4.60	30		
42679	6.40	60		
42680	10.55	100	$12.20	42688
42681	14.75	200	16.90	42689
42682	23.90	300	27.10	42690
42683	27.30	400	31.40	42691
42684	36.30	500	41.10	42692
42685	38.60	600	44.00	42693

Double Pole, Double Throw, Fused.

250 Volt. List No.	List.	Amps.	600 Volt. List.	List No.
42694	$6.20	30		
42695	8.55	60		
42696	13.85	100	$16.30	42704
42697	19.10	200	23.40	42705
42698	30.30	300	35.10	42706
42699	35.50	400	41.60	42707
42700	46.00	500	53.20	42708
42701	49.10	600	57.20	42709



T. P., S. T., Fused, Style B. Back Connected. Front of Board Type.

Three Pole, Single Throw, Fused.

250 Volt. List No.	List.	Amps.	600 Volt. List	List No.
42630	$6.85	30		
42631	9.55	60		
42632	15.85	100	$18.30	42640
42633	22.10	200	26.40	42641
42634	35.80	300	40.60	42642
42635	41.00	400	47.10	42643
42636	54.50	500	61.70	42644
42637	57.50	600	65.70	42645

SWITCHES, Knife.

Hill Style B Back Connection Fused Switches (Continued).

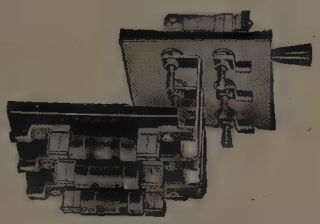
Polished switches are listed. Plain, 5 per cent reduction.

Double throw back connection switches are fused from the hinge contact only when fused on back, or from one end only when fused on face.

Switches arranged with fuses on front or back of board at same price. Front type shipped unless specified to the contrary.

National Electrical Code Standard. Fuses not included in the price.

Back connection switches shipped template mounted unless ordered shipped on permanent bases.



T. P., S. T., Fused, Style B.
Back Connected.
Back of Board Type.

Three Pole, Double Throw, Fused.

250 Volt. List.	List.	Amps.	600 Volt. List.	List No.
No. 42646.	$9.35	30		
,, 42647.	12.80	60		
,, 42648.	20.70	100	$24.40	42656
,, 42649.	28.65	200	33.50	42657
,, 42650.	45.50	300	52.70	42658
,, 42651.	53.20	400	62.40	42659
,, 42652.	68.90	500	79.50	42660
,, 42653.	73.80	600	85.50	42661

Hill Style C Switches, 250 Volt.

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in the price.



S. P., S. T., without Fuse.

Single Pole, Single Throw.

Without Fuse.

No. 42550.	60	amps.,	weight	3	lbs.	each,	$2.60
,, 42551.	100	,,	,,	4	,, ...	,,	3.85
,, 42552.	200	,,	,,	6	,, ...	,,	5.20
,, 42553.	300	,,	,,	9	,, ...	,,	8.10
,, 42554.	400	,,	,,	16	,, ...	,,	10.00
,, 42555.	500	,,	,,	23	,, ...	,,	12.20
,, 42556.	600	,,	,,	26	,, ...	,,	13.55
,, 42557.	800	,,	,,	29	,, ...	,,	19.00
,, 42558.	1000	,,	,,	33	,, ...	,,	27.00
,, 42559.	1250	,,	,,	38	,, ...	,,	42.50
,, 42560.	1750	,,	,,	42	,, ...	,,	63.00
,, 42561.	2000	,,	,,	46	,, ...	,,	85.00

With Fuse Connections.

No. 42562.	60	amps.,	weight	6	lbs.	each,	$4.15
,, 42563.	100	,,	,,	8	,, ...	,,	6.15
,, 42564.	200	,,	,,	12	,, ...	,,	8.35
,, 42565.	300	,,	,,	18	,, ...	,,	13.00
,, 42566.	400	,,	,,	25	,, ...	,,	16.00
,, 42567.	500	,,	,,	41	,, ...	,,	19.50
,, 42568.	600	,,	,,	49	,, ...	,,	21.65



S. P., D. T., without Fuse.

Single Pole, Double Throw.

Without Fuse.

No. 42569.	60	amps.,	weight	6	lbs.	each,	$3.90
,, 42570.	100	,,	,,	7	,, ...	,,	5.85
,, 42571.	200	,,	,,	10	,, ...	,,	7.55
,, 42572.	300	,,	,,	14	,, ...	,,	12.20
,, 42573.	400	,,	,,	21	,, ...	,,	15.40
,, 42574.	500	,,	,,	29	,, ...	,,	18.30
,, 42575.	600	,,	,,	38	,, ...	,,	20.50
,, 42576.	800	,,	,,	47	,, ...	,,	28.50
,, 42577.	1000	,,	,,	56	,, ...	,,	40.70
,, 42578.	1250	,,	,,	64	,, ...	,,	63.00
,, 42579.	1750	,,	,,	75	,, ...	,,	95.00
,, 42580.	2000	,,	,,	97	,, ...	,,	127.00

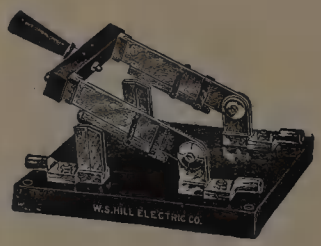
With Fuse Connections.

No. 42581.	60	amps.,	weight	9	lbs.	each,	$6.25
,, 42582.	100	,,	,,	10	,, ...	,,	9.35
,, 42583.	200	,,	,,	15	,, ...	,,	12.10
,, 42584.	300	,,	,,	21	,, ...	,,	19.50
,, 42585.	400	,,	,,	31	,, ...	,,	24.70
,, 42586.	500	,,	,,	42	,, ...	,,	29.30
,, 42587.	600	,,	,,	55	,, ...	,,	32.80

SWITCHES, Knife.

Hill Style C Switches, 250 Volt (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in the price.



D. P., S. T., without Fuse.

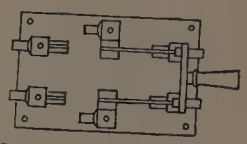
Double Pole, Single Throw.

Without Fuse.

No.	42511.	60	amps., weight	6	lbs.	each,	$3.90
,,	42512.	100	,, ,,	7	,,	,,	5.85
,,	42513.	200	,, ,,	10	,,	,,	7.55
,,	42514.	300	,, ,,	14	,,	,,	12.20
,,	42515.	400	,, ,,	21	,,	,,	15.40
,,	42516.	500	,, ,,	29	,,	,,	18.30
,,	42517.	600	,, ,,	38	,,	,,	20.50
,,	42518.	800	,, ,,	48	,,	,,	28.50
,,	42519.	1000	,, ,,	57	,,	,,	40.70
,,	42520.	1250	,, ,,	64	,,	,,	63.00
,,	42521.	1750	,, ,,	75	,,	,,	95.00
,,	42522.	2000	,, ,,	94	,,	,,	127.00

With Fuse Connections.

No.	42523.	60	amps., weight	12	lbs.	each,	$6.25
,,	42524.	100	,, ,,	15	,,	,,	9.30
,,	42525.	200	,, ,,	18	,,	,,	12.10
,,	42526.	300	,, ,,	21	,,	,,	19.55
,,	42527.	400	,, ,,	30	,,	,,	24.90
,,	42528.	500	,, ,,	42	,,	,,	29.30
,,	42529.	600	,, ,,	55	,,	,,	32.80



D. P., D. T., without Fuse.

Without Fuse. *Double Pole, Double Throw.*

No.	42530.	60	amps., weight	14	lbs.	each,	$5.80
,,	42531.	100	,, ,,	16	,,	,,	8.80
,,	42532.	200	,, ,,	19	,,	,,	11.75
,,	42533.	300	,, ,,	25	,,	,,	18.30
,,	42534.	400	,, ,,	33	,,	,,	23.20
,,	42535.	500	,, ,,	43	,,	,,	27.40
,,	42536.	600	,, ,,	52	,,	,,	30.50
,,	42537.	800	,, ,,	60	,,	,,	42.70
,,	42538.	1000	,, ,,	69	,,	,,	60.00
,,	42539.	1250	,, ,,	76	,,	,,	95.00
,,	42540.	1750	,, ,,	87	,,	,,	142.00
,,	42541.	2000	,, ,,	97	,,	,,	190.00

With Fuse Connections.

No.	42542.	60	amps., weight	18	lbs.	each,	$9.35
,,	42543.	100	,, ,,	22	,,	,,	14.00
,,	42544.	200	,, ,,	27	,,	,,	18.70
,,	42545.	300	,, ,,	31	,,	,,	29.30
,,	42546.	400	,, ,,	45	,,	,,	37.00
,,	42547.	500	,, ,,	63	,,	,,	43.90
,,	42548.	600	,, ,,	75	,,	,,	49.00



T. P., S. T., without Fuse.

Without Fuse. *Three Pole, Single Throw.*

No.	42173.	60	amps., weight	9	lbs.	each,	$5.85
,,	42174.	100	,, ,,	12	,,	,,	8.80
,,	42175.	200	,, ,,	17	,,	,,	11.70
,,	42176.	300	,, ,,	21	,,	,,	18.30
,,	42177.	400	,, ,,	31	,,	,,	23.20
,,	42178.	500	,, ,,	42	,,	,,	27.40
,,	42179.	600	,, ,,	55	,,	,,	30.50
,,	42180.	800	,, ,,	72	,,	,,	42.70
,,	42181.	1000	,, ,,	85	,,	,,	60.00
,,	42182.	1250	,, ,,	96	,,	,,	95.00
,,	42183.	1750	,, ,,	112	,,	,,	142.00
,,	42184.	2000	,, ,,	127	,,	,,	190.00

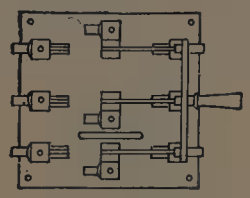
With Fuse Connections.

No.	42185.	60	amps., weight	18	lbs.	each,	$9.35
,,	42186.	100	,, ,,	22	,,	,,	14.00
,,	42187.	200	,, ,,	27	,,	,,	18.70
,,	42188.	300	,, ,,	31	,,	,,	29.30
,,	42189.	400	,, ,,	45	,,	,,	37.00
,,	42190.	500	,, ,,	63	,,	,,	43.90
,,	42191.	600	,, ,,	82	,,	,,	49.00

SWITCHES, Knife.

Hill Style C Switches, 250 Volt (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in the price.



T. P., D. T., without Fuse.

Without Fuse. *Three Pole, Double Throw.*

No.	42192.	60	amps., weight	21	lbs.	each,	$8.80
,,	42193.	100	,, ,,	25	,,	,,	13.15
,,	42194.	200	,, ,,	30	,,	,,	17.55
,,	42195.	300	,, ,,	38	,,	,,	27.40
,,	42196.	400	,, ,,	49	,,	,,	34.70
,,	42197.	500	,, ,,	69	,,	,,	41.00
,,	42198.	600	,, ,,	78	,,	,,	45.70
,,	42199.	800	,, ,,	90	,,	,,	64.00
,,	42500.	1000	,, ,,	103	,,	,,	91.00
,,	42501.	1250	,, ,,	112	,,	,,	144.00
,,	42502.	1750	,, ,,	130	,,	,,	213.00
,,	42503.	2000	,, ,,	145	,,	,,	285.00

With Fuse Connections.

No.	42504.	60	amps., weight	27	lbs.	each,	$15.40
,,	42505.	100	,, ,,	33	,,	,,	23.00
,,	42506.	200	,, ,,	41	,,	,,	30.70
,,	42507.	300	,, ,,	46	,,	,,	48.00
,,	42508.	400	,, ,,	67	,,	,,	60.80
,,	42509.	500	,, ,,	94	,,	,,	72.00
,,	42510.	600	,, ,,	112	,,	,,	80.00

Hill Style C Switches, 600 Volt.



S. P., S. T., without Fuse.

Without Fuse. *Single Pole, Single Throw.*

No.	39332.	60	amps., weight	8	lbs.	each,	$3.30
,,	39333.	100	,, ,,	10	,,	,,	4.90
,,	39334.	200	,, ,,	13	,,	,,	6.55
,,	39335.	300	,, ,,	16	,,	,,	10.25
,,	39336.	400	,, ,,	20	,,	,,	13.00
,,	39337.	500	,, ,,	25	,,	,,	15.40
,,	39338.	600	,, ,,	30	,,	,,	17.00
,,	39339.	800	,, ,,	34	,,	,,	23.90
,,	39340.	1000	,, ,,	37	,,	,,	34.10
,,	39341.	1250	,, ,,	43	,,	,,	53.30
,,	39342.	1750	,, ,,	48	,,	,,	79.60
,,	39343.	2000	,, ,,	60	,,	,,	106.50

With Fuse Connections.

No.	39344.	60	amps., weight	12	lbs.	each,	$5.25
,,	39345.	100	,, ,,	15	,,	,,	7.85
,,	39346.	200	,, ,,	18	,,	,,	10.50
,,	39347.	300	,, ,,	24	,,	,,	16.40
,,	39348.	400	,, ,,	30	,,	,,	20.80
,,	39349.	500	,, ,,	38	,,	,,	24.60
,,	39350.	600	,, ,,	45	,,	,,	27.20

Without Fuse. *Single Pole, Double Throw.*

No.	39351.	60	amps., weight	15	lbs.	each,	$4.90
,,	39353.	100	,, ,,	18	,,	,,	7.40
,,	39354.	200	,, ,,	21	,,	,,	9.85
,,	39355.	300	,, ,,	27	,,	,,	15.40
,,	39356.	400	,, ,,	36	,,	,,	19.50
,,	39362.	500	,, ,,	42	,,	,,	23.10
,,	39363.	600	,, ,,	48	,,	,,	25.60
,,	39365.	800	,, ,,	57	,,	,,	35.90
,,	39370.	1000	,, ,,	63	,,	,,	51.20
,,	39371.	1250	,, ,,	75	,,	,,	80.40
,,	39374.	1750	,, ,,	93	,,	,,	119.40
,,	39375.	2000	,, ,,	112	,,	,,	159.90



S. P., D. T., without Fuse.

With Fuse Connections.

No.	39378.	60	amps., weight	21	lbs.	each,	$7.85
,,	39379.	100	,, ,,	27	,,	,,	11.85
,,	39380.	200	,, ,,	33	,,	,,	15.75
,,	39381.	300	,, ,,	42	,,	,,	24.65
,,	39382.	400	,, ,,	52	,,	,,	31.20
,,	39383.	500	,, ,,	61	,,	,,	37.00
,,	39384.	600	,, ,,	72	,,	,,	41.00

SWITCHES, Knife.

Hill Style C Switches, 600 Volt (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in the price.



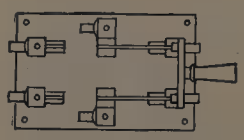
D. P., S. T., without Fuse.

Without Fuse. *Double Pole, Single Throw.*

No. 39385.	60	amps.,	weight	12	lbs..... each,	$4.90
,, 39390.	100	,,	,,	16	,, ... ,,	7.40
,, 39391.	200	,,	,,	21	,, ... ,,	9.85
,, 39410.	300	,,	,,	29	,, ... ,,	15.40
,, 39412.	400	,,	,,	38	,, ... ,,	19.50
,, 39413.	500	,,	,,	45	,, ... ,,	23.10
,, 39414.	600	,,	,,	55	,, ... ,,	25.60
,, 39415.	800	,,	,,	63	,, ... ,,	35.90
,, 39416.	1000	,,	,,	72	,, ... ,,	51.20
,, 39417.	1250	,,	,,	81	,, ... ,,	80.40
,, 39418.	1750	,,	,,	96	,, ... ,,	119.40
,, 39421.	2000	,,	,,	112	,, ... ,,	159.90

With Fuse Connections.

No. 39422.	60	amps.,	weight	18	lbs..... each,	$7.85
,, 39423.	100	,,	,,	27	,, ... ,,	11.85
,, 39424.	200	,,	,,	39	,, ... ,,	15.75
,, 39425.	300	,,	,,	48	,, ... ,,	24.65
,, 39426.	400	,,	,,	57	,, ... ,,	31.20
,, 39427.	500	,,	,,	64	,, ... ,,	37.00
,, 39428.	600	,,	,,	75	,, ... ,,	41.00



D. P., D. T., without Fuse.

Without Fuse. *Double Pole, Double Throw.*

No. 39429.	60	amps.,	weight	16	lbs..... each,	$7.40
,, 39430.	100	,,	,,	23	,, ... ,,	11.10
,, 39431.	200	,,	,,	29	,, ... ,,	14.75
,, 39444.	300	,,	,,	31	,, ... ,,	23.00
,, 39449.	400	,,	,,	43	,, ... ,,	29.30
,, 39450.	500	,,	,,	60	,, ... ,,	34.60
,, 39451.	600	,,	,,	72	,, ... ,,	38.50
,, 39452.	800	,,	,,	84	,, ... ,,	53.60
,, 39453.	1000	,,	,,	93	,, ... ,,	76.80
,, 39454.	1250	,,	,,	105	,, ... ,,	120.10
,, 39455.	1750	,,	,,	117	,, ... ,,	179.40
,, 39456.	2000	,,	,,	135	,, ... ,,	239.50

With Fuse Connections.

No. 39457.	60	amps.,	weight	23	lbs..... each,	$11.85
,, 39458.	100	,,	,,	30	,, ... ,,	17.75
,, 39459.	200	,,	,,	42	,, ... ,,	23.60
,, 39460.	300	,,	,,	52	,, ... ,,	36.80
,, 39461.	400	,,	,,	61	,, ... ,,	46.90
,, 39462.	500	,,	,,	69	,, ... ,,	55.00
,, 39463.	600	,,	,,	78	,, ... ,,	62.00



T. P., S. T., without Fuse.

Without Fuse. *Three Pole, Single Throw.*

No. 39557.	60	amps.,	weight	18	lbs..... each,	$7.40
,, 39558.	100	,,	,,	23	,, ... ,,	11.10
,, 39559.	200	,,	,,	31	,, ... ,,	14.75
,, 39560.	300	,,	,,	43	,, ... ,,	23.00
,, 39561.	400	,,	,,	57	,, ... ,,	29.30
,, 39562.	500	,,	,,	67	,, ... ,,	34.60
,, 39563.	600	,,	,,	79	,, ... ,,	38.50
,, 39564.	800	,,	,,	94	,, ... ,,	53.60
,, 39565.	1000	,,	,,	108	,, ... ,,	76.80
,, 39566.	1250	,,	,,	121	,, ... ,,	120.10
,, 39567.	1750	,,	,,	144	,, ... ,,	179.40
,, 39568.	2000	,,	,,	167	,, ... ,,	239.50

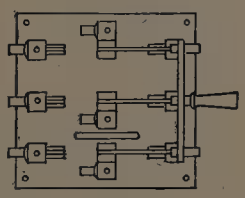
With Fuse Connections.

No. 39569.	60	amps.,	weight	27	lbs..... each,	$11.85
,, 39570.	100	,,	,,	41	,, ... ,,	17.75
,, 39571.	200	,,	,,	58	,, ... ,,	23.60
,, 39572.	300	,,	,,	72	,, ... ,,	36.80
,, 39573.	400	,,	,,	85	,, ... ,,	46.90
,, 39574.	500	,,	,,	96	,, ... ,,	55.00
,, 39575.	600	,,	,,	112	,, ... ,,	62.00

SWITCHES, Knife.

Hill Style C Switches, 600 Volt (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in price.



T. P., D. T., without Fuse.

Three Pole Double Throw.

Without Fuse.

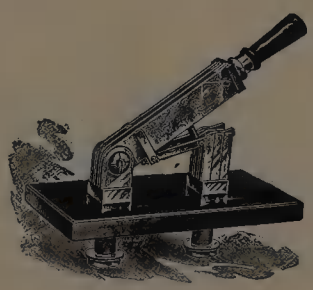
No.	39576.	60	amps., weight	25	lbs.	each,	$11.10
,,	39577.	100	,, ,,	35	,, ...	,,	16.60
,,	39578.	200	,, ,,	43	,, ...	,,	22.15
,,	39579.	300	,, ,,	48	,, ...	,,	24.60
,,	39580.	400	,, ,,	64	,, ...	,,	43.90
,,	39581.	500	,, ,,	90	,, ...	,,	51.70
,,	39582.	600	,, ,,	108	,, ...	,,	57.50
,,	39583.	800	,, ,,	126	,, ...	,,	80.90
,,	39584.	1000	,, ,,	139	,, ...	,,	115.00
,,	39585.	1250	,, ,,	157	,, ...	,,	181.00
,,	39586.	1750	,, ,,	175	,, ...	,,	269.10
,,	39587.	2000	,, ,,	202	,, ...	,,	358.80

With Fuse Connections.

No.	39588.	60	amps., weight	35	lbs.	each,	$19.45
,,	39589.	100	,, ,,	45	,, ...	,,	29.00
,,	39590.	200	,, ,,	63	,, ...	,,	38.80
,,	39591.	300	,, ,,	78	,, ...	,,	60.00
,,	39592.	400	,, ,,	91	,, ...	,,	77.00
,,	39593.	500	,, ,,	103	,, ...	,,	90.00
,,	39594.	600	,, ,,	117	,, ...	,,	100.00

Hill Style C Back Connection Switches.

Polished switches are listed. Plain, 5 per cent reduction. National Electrical Code Standard.



S. P., S. T. Switch.

Single Pole, Single Throw.

250 Volt. List No.	Weight.	List.	Amps.	600 Volt. List.	Weight.	List No.
42201	2	$3.65	60			
42202	3	5.40	100	$6.90	4	42213
42203	4	7.25	200	9.15	7	42214
42204	6	11.35	300	14.35	10	42215
42205	9	14.00	400	18.20	14	42216
42206	12	17.00	500	21.60	17	42217
42207	17	19.00	600	23.80	21	42218
42208	21	26.60	800	33.50	29	42219
42209	29	37.80	1000	47.80	33	42220
42210	32	59.00	1250	74.00	39	42221
42211	39	88.00	1750	111.00	45	42222
42212	45	119.00	2000	149.00	52	42223



S. P., D. T. Switch.

Single Pole, Double Throw.

250 Volt. List No.	Weight.	List.	Amps.	600 Volt. List.	Weight.	List No
42224	2	$5.45	60			
42225	4	8.15	100	$10.35	5	42236
42226	6	10.50	200	13.75	9	42237
42227	8	17.00	300	21.50	14	42238
42228	10	21.50	400	27.30	16	42239
42229	14	25.60	500	32.30	21	42240
42230	18	28.70	600	35.80	29	42241
42231	24	40.00	800	50.00	33	42242
42232	33	57.00	1000	72.00	39	42243
42233	38	88.00	1250	112.00	45	42244
42234	42	133.00	1750	167.00	52	42245
42235	46	178.00	2000	224.00	60	42246

SWITCHES, Knife.

Hill Style C Back Connection Switches (Continued).

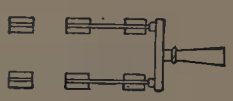
Polished switches are listed. Plain, 5 per cent reduction. National Electrical Code Standard.



D. P., S. T. Switch.

Double Pole, Single Throw.

250 Volt. List. No.	Weight.	List.	Amps.	600 Volt. List.	Weight.	List No.
42247	3	$5.45	60			
42248	4	8.15	100	$10.35	8	42259
42249	8	10.50	200	13.75	10	42260
42250	10	17.00	300	21.50	14	42261
42251	14	21.50	400	27.30	18	42262
42252	18	25.60	500	32.30	23	42263
42253	23	28.70	600	35.80	29	42264
42254	29	40.00	800	50.00	36	42265
42255	36	50.00	1000	72.00	45	42266
42256	45	88.00	1250	112.00	52	42267
42257	52	133.00	1750	167.00	63	42268
42258	63	178.00	2000	224.00	75	42269



D. P., D. T. Switch.

Double Pole, Double Throw.

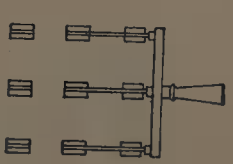
250 Volt. List. No.	Weight.	List.	Amps.	600 Volt. List.	Weight.	List No.
42270	5	$8.20	60			
42271	8	12.30	100	$15.50	10	42282
42272	12	16.40	200	20.60	14	42283
42273	15	25.60	300	32.20	18	42284
42274	19	32.50	400	41.00	23	42285
42275	25	38.40	500	48.40	29	42286
42276	33	42.70	600	54.00	38	42287
42277	43	59.00	800	75.00	48	42288
42278	54	84.00	1000	107.00	57	42289
42279	64	133.00	1250	168.00	67	42290
42280	75	199.00	1750	251.00	82	42291
42281	94	266.00	2000	335.00	102	42292



T. P., S. T., without Fuse.

Three Pole, Single Throw.

250 Volt. List No.	Weight.	List.	Amps.	600 Volt. List.	Weight.	List No.
42293	4	$8.20	60			
42294	6	14.30	100	$15.50	10	42306
42295	12	16.40	200	20.60	15	42307
42296	15	25.60	300	32.20	21	42308
42297	21	32.50	400	41.00	27	42309
42298	27	38.40	500	48.40	35	42310
42299	35	42.70	600	54.00	43	42311
42300	43	59.00	800	75.00	54	42312
42301	54	84.00	1000	107.00	67	42313
42302	67	133.00	1250	168.00	79	42314
42303	76	199.00	1750	251.00	63	42315
42304	93	266.00	2000	335.00	112	42316



T. P., D. T., without Fuse.

Three Pole, Double Throw.

250 Volt. List No.	Weight.	List.	Amps.	600 Volt. List.	Weight.	List No.
42317	6	$12.30	60			
42318	12	18.40	100	$23.20	15	42330
42319	18	24.50	200	31.00	21	42331
42320	23	38.40	300	48.00	27	42332
42321	30	48.60	400	61.00	35	42333
42322	38	58.00	500	72.00	43	42334
42323	49	64.00	600	80.00	55	42335
42324	64	90.00	800	113.00	70	42336
42325	81	103.00	1000	161.00	85	42337
42326	96	202.00	1250	253.00	102	42338
42327	112	298.00	1750	377.00	124	42339
42328	141	399.00	2000	502.00	156	42340

SWITCHES, Knife (Continued).

Hill Style C Back Connection Fused Switches.

Polished switches are listed. Plain, 5 per cent reduction.

Double throw back connection switches are fused from the hinge contact only when fused on back, or from one end only when fused on face.

If additional fuse blocks are wanted, refer to FBB fuse block list. (See Fuses.) Fuses not included in the price.

Back connection switches shipped template mounted unless ordered on permanent bases.

Price of 4-pole switches double the double-pole list.



S. P., S. T., Style C. Back Connected. Front of Board Type.

Single Pole, Single Throw, Fused.

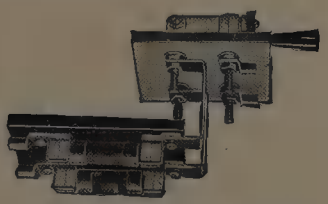
250 Volt. List No.	List.	Amps.	600 Volt. List.	600 Volt. List No.
42341	$4.75	60		
42342	7.40	100	$8.90	42349
42343	10.25	200	12.15	42350
42344	16.85	300	17.85	42351
42345	19.50	400	23.70	42352
42346	25.50	500	30.10	42353
42347	27.50	600	32.30	42354



D. P., S. T., Style C. Back Connected. Front of Board Type.

Single Pole, Double Throw, Fused.

250 Volt. List No.	List.	Amps.	600 Volt. List.	600 Volt. List No.
42355	$6.55	60		
42356	10.15	100	$12.35	42363
42357	13.50	200	16.75	42364
42358	22.50	300	27.00	42365
42359	27.00	400	32.80	42366
42360	34.10	500	40.80	42367
42361	37.20	600	44.30	42368



D. P., S. T. Style C. Back Connected. Back of Board Type.

Double Pole, Single Throw, Fused.

250 Volt. List No.	List.	Amps.	600 Volt. List.	600 Volt. List No.
42117	$7.45	60		
42118	12.15	100	$14.35	42125
42119	16.50	200	19.75	42126
42120	28.00	300	22.50	42127
42121	32.50	400	38.30	42128
42122	42.60	500	49.30	42129
42123	45.70	600	52.80	42130



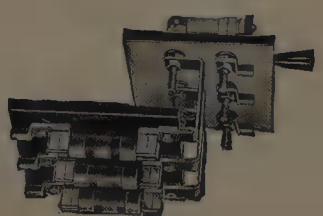
T. P., S. T., Style C. Back Connected. Front of Board Type.

Double Pole, Double Throw, Fused.

250 Volt. List No.	List.	Amps.	600 Volt. List.	600 Volt. List No.
42131	$10.20	60		
42132	16.30	100	$19.50	42139
42133	22.40	200	26.60	42140
42134	36.60	300	43.20	42141
42135	43.50	400	52.00	42142
42136	55.40	500	65.40	42143
42137	59.70	600	71.00	42144

Three Pole, Single Throw, Fused.

250 Volt. List No.	List.	Amps.	600 Volt. List.	600 Volt. List No.
42145	$11.20	60		
42146	18.30	100	$21.50	42153
42147	25.40	200	29.60	42154
42148	42.10	300	48.70	42155
42149	49.00	400	57.50	42156
42150	63.90	500	73.90	42157
42151	68.20	600	79.50	42158



T. P., S. T., Style C. Back Connected. Back of Board Type.

Three Pole, Double Throw, Fused.

250 Volt. List No.	List.	Amps.	600 Volt. List.	600 Volt. List No.
42159	$15.30	60		
42160	24.40	100	$29.20	42167
42161	33.50	200	40.00	42168
42162	54.90	300	64.50	42169
42163	65.10	400	77.50	42170
42164	83.50	500	97.50	42171
42165	89.50	600	105.50	42172

SWITCHES, Knife (Continued).

Hill Style D Switches, 1100–2500 Volt.

Polished finish, blue Vermont marble base, hardwood barriers with black finish. Extra for marble barriers: D. P., S. T., $3.90; T. P., S. T., $7.80; D. P., D. T., $5.10; T. P., D. T., $10.15.

National Electrical Code Standard.



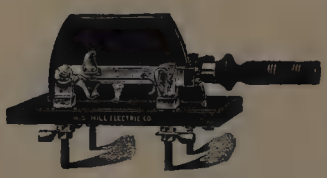
Style D Switch.

	1100 Volt.				2500 Volt.		
	List No.	Weight.	List.	Amps.	List.	Weight.	List No.
S. P., S. T.	39595	9	$10.90	100	$11.70	11	41930
,,	39596	12	13.25	200	14.80	15	41931
,,	39597	16	18.00	300	19.50	20	41932
S. P., D. T.	39598	18	14.80	100	16.40	23	41933
,,	39599	22	18.00	200	20.30	28	41934
,,	39600	30	26.50	300	28.90	37	41935
D. P., S. T.	39601	20	21.00	100	22.60	25	41936
,,	39602	28	24.00	200	27.30	35	41937
,,	39603	35	33.50	300	36.70	43	41938
D. P., D. T.	39604	35	28.90	100	32.00	43	41939
,,	39605	50	35.90	200	39.80	62	41940
,,	39606	65	49.20	300	55.00	81	41941
T. P., S. T.	39607	30	31.20	100	35.10	37	41942
,,	39608	42	36.70	200	41.40	52	41943
,,	39609	53	51.00	300	57.00	65	41944
T. P., D. T.	39610	52	43.70	100	49.20	65	41945
,,	39611	75	52.00	200	61.00	95	41946
,,	39612	95	74.00	300	83.00	120	41947

Hill Style DF Switches, 1100–2500 Volt.

Polished finish, slate templates, hardwood barriers, black finish. Extra for marble barriers, same as Style D.

National Electrical Code Standard.



Style DF.

	1100 Volt.				2500 Volt.		
	List No.	Weight.	List.	Amps.	List.	Weight.	List No.
S. P., S. T.	39613	11	$10.90	100	$11.70	14	42662
,,	39614	15	13.25	200	14.80	19	42663
,,	39615	20	18.00	300	19.50	25	42664
S. P., D. T.	39616	16	14.80	100	16.40	20	42665
,,	39617	22	18.00	200	20.30	27	42666
,,	39618	29	26.50	300	28.90	36	42667
D. P., S. T.	39619	22	21.00	100	22.60	27	42668
,,	39620	27	24.20	200	27.30	34	42669
,,	39621	35	33.60	300	36.70	44	42670
D. P., D. T.	39622	32	28.90	100	32.00	40	42671
,,	39623	45	35.90	200	39.80	56	42672
,,	39624	68	49.00	300	55.00	85	42673
T. P., S. T.	39625	34	31.30	100	35.10	42	42674
,,	39626	42	36.70	200	41.40	52	42675
,,	39627	57	51.00	300	57.00	71	42676
T. P., D. T.	39628	48	43.70	100	49.20	60	42677
,,	39629	67	52.00	200	61.00	84	42369
,,	39630	112	74.00	300	83.00	127	42370

Hill Style DB Switches, 1100–2500 Volt.

Parts on front of board polished, slate templates, hardwood barriers, black finish. Extra for marble barriers, same as Style D. National Electrical Code Standard.

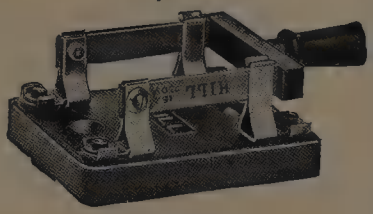


Style DB.

	1100 Volt.				2500 Volt.		
	List No.	Weight.	List.	Amps.	List.	Weight.	List No.
D. P., S. T.	39631	19	$45.25	100	$51.00	25	42371
,,	39632	25	54.00	200	59.00	31	42372
,,	39633	32	73.00	300	81.00	39	42373
D. P., D. T.	39634	25	64.00	100	71.00	31	42374
,,	39635	32	78.00	200	86.00	42	42375
,,	39636	34	108.00	300	120.00	57	42376
T. P., S. T.	39637	46	63.00	100	76.00	36	42377
,,	39638	29	80.00	200	90.00	47	42378
,,	39639	38	112.00	300	125.00	62	42379
T. P., D. T.	39640	50	97.00	100	107.00	45	42380
,,	39641	33	120.00	200	133.00	71	42381
,,	39642	57	164.00	300	182.00	95	42382



Style X.



Style XX.



Style Y.



Handle A. Handle C.



Style X.



Style Y.



S. P., S. T., Style E.



S. P., S. T., Fused, Style E.

SWITCHES, Knife (Continued).

Hill Style E Plug Type Switches, 250 Volt.

National Electrical Code Standard.

Double Pole, Single Throw.

No.	Amps.	Weight.	Handle.	Style.	Std. Pkg.	List.
41969	15	120		XX	100	$ .48
41970	30	120		XX	100	.60
41971	30	120	C	X	50	.85
41972	30	120	A	Y	50	.85
41973	30	120	B	Y	50	.85
41974	30	120	C	Y	50	.85
41975	60	65	A	X	10	3.50
41976	60	65	A	Y	10	3.50
41977	60	65	C	X	10	3.50
41978	60	65	C	Y	10	3.50

Three Pole, Single Throw.

No.	Amps.	Weight.	Handle.	Style.	Std. Pkg.	List.
41979	30	180	A	Y	50	$1.35
41980	30	180	C	Y	50	1.35
41981	30	180	C	X	50	1.35
41982	60	100	A	Y	10	5.00
41983	60	100	C	X	10	5.00
41984	60	100	C	Y	10	5.00

Hill Style E Cartridge Type Switches, 250 Volt.

National Electrical Code Standard.

Double Pole, Single Throw.

	Amps.	Weight.	Handle.	Style.	Std. Pkg.	List.
No. 41985.	15	120		XX	100	$ .48
,, 41986.	30	120		XX	100	.60
,, 41987.	30	120	C	X	50	.80
,, 41988.	30	120	A	Y	50	.80
,, 41989.	30	120	B	Y	50	.80
,, 41990.	30	120	C	Y	50	.80
,, 41991.	60	65	A	X	10	2.70
,, 41992.	60	65	A	Y	10	2.70
,, 41993.	60	65	C	X	10	2.70
,, 41994.	60	65	C	Y	10	2.70

Three Pole, Single Throw.

	Amps.	Weight.	Handle.	Style.	Std. Pkg.	List.
No. 41995.	30	180	A	Y	50	$1.30
,, 41996.	30	180	C	Y	50	1.30
,, 41997.	30	180	C	X	50	1.30
,, 41998.	60	100	A	Y	10	3.90
,, 41999.	60	100	C	X	10	3.90
,, 42200.	60	100	C	Y	10	3.90

Hill Style E Switches.

Plain switches listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in the price.

250 Volt. *Single Pole, Single Throw.*

No. 39644.	30 amps.,	weight 1 lb.	each,	$ .60
,, 39645.	60 ,,	,, 3 ,,	,,	1.10
,, 39646.	100 ,,	,, 4 ,,	,,	2.00
,, 39647.	200 ,,	,, 6 ,,	,,	3.75
,, 39648.	300 ,,	,, 9 ,,	,,	4.75
,, 39649.	400 ,,	,, 16 ,,	,,	5.85

600 Volt.

No. 42054.	100 amps.,	weight 10 lbs.	each,	$2.50
,, 42055.	200 ,,	,, 13 ,,	,,	4.65
,, 42056.	300 ,,	,, 16 ,,	,,	5.95
,, 42057.	400 ,,	,, 20 ,,	,,	7.30

250 Volt. *Single Pole, Single Throw, Fused.*

No. 39650.	30 amps.,	weight 4 lbs.	each,	$ .90
,, 39651.	60 ,,	,, 7 ,,	,,	1.40
,, 39652.	100 ,,	,, 9 ,,	,,	2.70
,, 39653.	200 ,,	,, 12 ,,	,,	5.25
,, 39654.	300 ,,	,, 15 ,,	,,	6.60
,, 39655.	400 ,,	,, 27 ,,	,,	10.00

600 Volt.

No. 42058.	100 amps.,	weight 15 lbs.	each,	$3.40
,, 42059.	200 ,,	,, 18 ,,	,,	6.55
,, 42060.	300 ,,	,, 24 ,,	,,	8.25
,, 42061.	400 ,,	,, 30 ,,	,,	12.50

SWITCHES, Knife.

Hill Style E Switches (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in price.



S. P., D. T., Style E.

Single Pole, Double Throw.

250 Volt.

No.	39656.	30 amps.,	weight	5 lbs.	each,	$1.05
,,	39657.	60 ,,	,,	6 ,,	,,	2.00
,,	39658.	100 ,,	,,	7 ,,	,,	3.50
,,	39659.	200 ,,	,,	10 ,,	,,	5.60
,,	39660.	300 ,,	,,	14 ,,	,,	7.20
,,	39661.	400 ,,	,,	21 ,,	,,	9.00

600 Volt.

No.	42062.	100 amps.,	weight	18 lbs.	each,	$4.40
,,	42063.	200 ,,	,,	21 ,,	,,	7.00
,,	42064.	300 ,,	,,	27 ,,	,,	9.00
,,	42065.	400 ,,	,,	36 ,,	,,	11.25



S. P., D. T., Fused, Style E.

Single Pole, Double Throw, Fused.

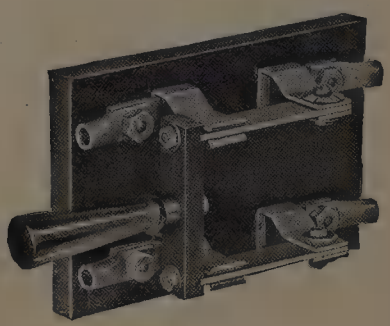
250 Volt.

No.	39662.	30 amps.,	weight	6 lbs.	each,	$1.40
,,	39663.	60 ,,	,,	9 ,,	,,	3.00
,,	39664.	100 ,,	,,	10 ,,	,,	5.25
,,	39665.	200 ,,	,,	15 ,,	,,	8.50
,,	39666.	300 ,,	,,	21 ,,	,,	10.75
,,	39667.	400 ,,	,,	31 ,,	,,	13.50

600 Volt.

No.	42066.	100 amps.,	weight	27 lbs.	each,	$6.55
,,	42067.	200 ,,	,,	33 ,,	,,	10.65
,,	42068.	300 ,,	,,	42 ,,	,,	13.45
,,	42069.	400 ,,	,,	52 ,,	,,	16.90

Double Pole, Single Throw.



D. P., S. T., Style E.

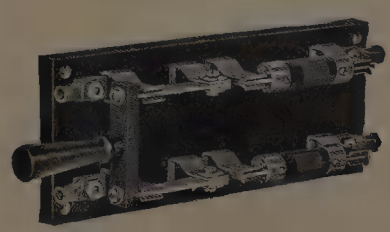
250 Volt.

No.	39668.	30 amps.,	weight	4 lbs.	each,	$ .80
,,	39669.	60 ,,	,,	6 ,,	,,	1.50
,,	39670.	100 ,,	,,	7 ,,	,,	2.80
,,	39671.	200 ,,	,,	10 ,,	,,	5.60
,,	39672.	300 ,,	,,	14 ,,	,,	7.20
,,	39673.	400 ,,	,,	21 ,,	,,	9.00

600 Volt,

No.	42070.	30 amps.,	weight	9 lbs.	each,	$1.00
,,	42071.	60 ,,	,,	12 ,,	,,	1.90
,,	42072.	100 ,,	,,	16 ,,	,,	3.50
,,	42073.	200 ,,	,,	21 ,,	,,	7.00
,,	42074.	300 ,,	,,	29 ,,	,,	9.00
,,	42075.	400 ,,	,,	38 ,,	,,	11.25

Double Pole, Single Throw, Fused.



D. P., S. T., Fused, Style E.

250 Volt.

No.	39674.	30 amps.,	weight	8 lbs.	each,	$1.10
,,	39675.	60 ,,	,,	12 ,,	,,	1.80
,,	39676.	100 ,,	,,	15 ,,	,,	3.50
,,	39677.	200 ,,	,,	18 ,,	,,	8.00
,,	39678.	300 ,,	,,	21 ,,	,,	9.75
,,	39679.	400 ,,	,,	30 ,,	,,	15.75

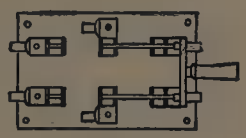
600 Volt.

No.	42076.	30 amps.,	weight	12 lbs.	each,	$1.40
,,	42077.	60 ,,	,,	18 ,,	,,	2.25
,,	42078.	100 ,,	,,	27 ,,	,,	4.40
,,	42079.	200 ,,	,,	39 ,,	,,	10.00
,,	42080.	300 ,,	,,	48 ,,	,,	12.20
,,	42081.	400 ,,	,,	57 ,,	,,	19.70

SWITCHES, Knife.

Hill Style E Switches (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in price.



D. P., D. T., Style E.

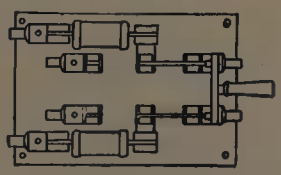
Double Pole, Double Throw.

250 Volt.

No.	39680.	30	amps., weight	10	lbs.	each,	$1.50
,,	39681.	60	,, ,,	14	,,	,,	2.75
,,	39682.	100	,, ,,	16	,,	,,	5.00
,,	39683.	200	,, ,,	19	,,	,,	8.75
,,	39684.	300	,, ,,	25	,,	,,	11.00
,,	39685.	400	,, ,,	33	,,	,,	13.50

600 Volt.

No.	42082.	30	amps., weight	14	lbs.	each,	$1.90
,,	42083.	60	,, ,,	16	,,	,,	3.45
,,	42084.	100	,, ,,	23	,,	,,	6.25
,,	42085.	200	,, ,,	29	,,	,,	10.95
,,	42086.	300	,, ,,	31	,,	,,	13.75
,,	42087.	400	,, ,,	43	,,	,,	16.90



D. P., D. T., Fused, Style E.

Double Pole, Double Throw, Fused.

250 Volt.

No.	39686.	30	amps., weight	14	lbs.	each,	$1.80
,,	39687.	60	,, ,,	18	,,	,,	4.25
,,	39688.	100	,, ,,	22	,,	,,	7.00
,,	39689.	200	,, ,,	27	,,	,,	12.75
,,	39690.	300	,, ,,	31	,,	,,	16.00
,,	39691.	400	,, ,,	45	,,	,,	20.25

600 Volt.

No.	42088.	30	amps., weight	18	lbs.	each,	$2.25
,,	42089.	60	,, ,,	23	,,	,,	5.30
,,	42090.	100	,, ,,	30	,,	,,	8.75
,,	42091.	200	,, ,,	42	,,	,,	15.95
,,	42092.	300	,, ,,	52	,,	,,	20.00
,,	42093.	400	,, ,,	61	,,	,,	25.30



T. P., S. T., Style E.

Three Pole, Single Throw.

250 Volt.

No.	39692.	30	amps., weight	6	lbs.	each,	$1.40
,,	39693.	60	,, ,,	9	,,	,,	2.30
,,	39694.	100	,, ,,	12	,,	,,	4.50
,,	39695.	200	,, ,,	17	,,	,,	8.50
,,	39696.	300	,, ,,	21	,,	,,	10.75
,,	39697.	400	,, ,,	31	,,	,,	13.00

600 Volt.

No.	42094.	30	amps., weight	14	lbs.	each,	$1.75
,,	42095.	60	,, ,,	18	,,	,,	2.90
,,	42096.	100	,, ,,	23	,,	,,	5.65
,,	42097.	200	,, ,,	31	,,	,,	10.65
,,	42098.	300	,, ,,	43	,,	,,	13.45
,,	42099.	400	,, ,,	57	,,	,,	16.25

Three Pole, Single Throw, Fused.

250 Volt.

No.	39698.	30	amps., weight	13	lbs.	each,	$1.75
,,	39699.	60	,, ,,	18	,,	,,	2.80
,,	39700.	100	,, ,,	22	,,	,,	5.70
,,	39701.	200	,, ,,	27	,,	,,	12.00
,,	39702.	300	,, ,,	31	,,	,,	20.00
,,	39703.	400	,, ,,	45	,,	,,	22.75



T. P., S. T., Fused, Style E.

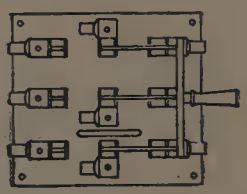
600 Volt.

No.	42100,	30	amps., weight	23	lbs.	each,	$2.25
,,	42101.	60	,, ,,	27	,,	,,	3.50
,,	42992.	100	,, ,,	41	,,	,,	7.15
,,	42102.	200	,, ,,	58	,,	,,	15.00
,,	42103.	300	,, ,,	72	,,	,,	25.00
,,	42104.	400	,, ,,	85	,,	,,	28.45

SWITCHES, Knife.

Hill Style E Switches (Continued).

Plain switches are listed. Polished switches, 30 per cent extra. National Electrical Code Standard. Fuses not included in price.



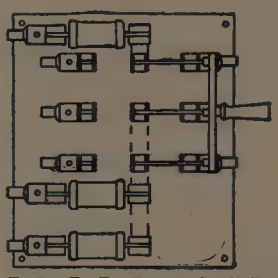
T. P., D. T., Style E.

250 Volt. *Three Pole, Double Throw.*

No. 39704.	30	amps.,	weight	17	lbs.	each, $2.10
,, 39705.	60	,,	,,	21	,, ...	,, 3.40
,, 39706.	100	,,	,,	25	,, ...	,, 5.10
,, 39707.	200	,,	,,	30	,, ...	,, 10.15
,, 39708.	300	,,	,,	38	,, ...	,, 13.15
,, 39709.	400	,,	,,	49	,, ...	,, 19.50

600 Volt.

No. 42105.	30	amps.,	weight	20	lbs.	each, $1.90
,, 42106.	60	,,	,,	25	,, ...	,, 4.25
,, 42107.	100	,,	,,	35	,, ...	,, 6.40
,, 42108.	200	,,	,,	43	,, ...	,, 12.70
,, 42109.	300	,,	,,	48	,, ...	,, 16.45
,, 42110.	400	,,	,,	64	,, ...	,, 24.40



T. P., D. T., Fused, Style E.

Three Pole, Double Throw, Fused.

250 Volt.

No. 39710.	30	amps.,	weight	23	lbs.	each, $2.65
,, 39711.	60	,,	,,	27	,, ...	,, 6.95
,, 39712.	100	,,	,,	33	,, ...	,, 8.95
,, 39713.	200	,,	,,	41	,, ...	,, 17.75
,, 39714.	300	,,	,,	46	,, ...	,, 23.00
,, 39715.	400	,,	,,	67	,, ...	,, 34.15

600 Volt.

No. 42111.	30	amps.,	weight	28	lbs.	each, $2.85
,, 42112.	60	,,	,,	35	,, ...	,, 6.40
,, 42113.	100	,,	,,	45	,, ...	,, 9.60
,, 42114.	200	,,	,,	63	,, ...	,, 19.00
,, 42115.	300	,,	,,	78	,, ...	,, 24.70
,, 42116.	400	,,	,,	91	,, ...	,, 36.60

Hill Three and Four Way Switches, Double Pole.

Plain finish, back connection, 250-volt switches only are listed and will be furnished on all orders unless order calls for polished finish or some of the special features below.

Polished switches, add 30 per cent to net cost of 250-volt switch.

500-volt switches, add 25 per cent to net cost of 250-volt switch.

1,000-volt switches, add 50 per cent to net cost of 250-volt switch.

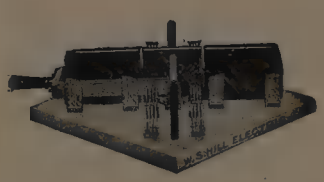
Wood barriers are furnished on all 500- and 1000-volt switches.

Marble barriers quoted on application.

For marble bases, add 20 per cent to net cost of switch, including special features.

In ordering, state your requirements fully.

National Electrical Code Standard.



Three and Four Way.

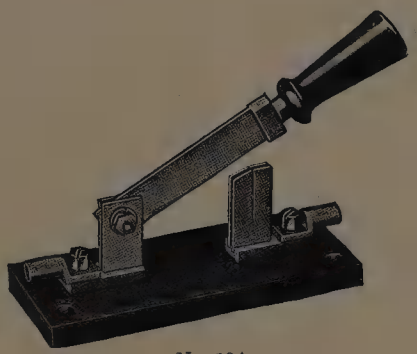
	Three Way.				*Four Way.*		
	List.	Weight.	List.	Amps.	List.	Weight.	List No.
No.	39825.	21	$27.30	100	$32.75	28	39837
,,	39826.	30	33.15	200	39.80	40	39838
,,	39827.	42	39.00	300	46.80	56	39839
,,	39828.	63	46.80	400	56.15	84	39840
,,	39829.	87	53.23	500	63.95	116	39841
,,	39830.	114	62.00	600	74.10	152	39842
,,	39831.	144	81.50	800	97.50	192	39843
,,	39832.	171	113.90	1000	136.50	228	39844
,,	39833.	192	204.35	1250	244.90	256	39845
,,	39834.	225	296.40	1750	355.70	300	39846
"	39835.	282	393.90	2000	470.35	376	39847

SWITCHES, Knife (Continued).

American Type A Switches.

Type A switches are designed to conform to the requirements of the National Board of Fire Underwriters, and special attention has been paid to every detail of construction. They are made of pure hard drawn copper; the blade ends are reënforced and they have ample metal and contact surface to carry 50 per cent overload. (Made in plain or polished finish.) All nuts, screws, etc., are copper plated to match conducting parts.

All fused switches are fused on hinge end unless ordered fused on handle end. When switches are fused on handle end, high jaws are required. All orders for fused switches will be filled with switches for National Electrical Code fuses unless make and type of fuse are specified. Plain switches sent unless otherwise ordered.



No. 104.

Single Pole, 250 Volt, Front Connected.

Amps.	Cat. No.	S. P., S. T.	Cat. No.	S. P., D. T.	Cat. No.	S. P., S. T., Fused.	Cat. No.	S. P., D. T., Fused.
25	100	$ .76	120	$1.22	140	$1.16	160	$2.40
35	101	.96	121	1.54	141	1.40	161	2.96
50	102	1.25	122	2.02	142	1.75	162	3.70
75	103	1.66	123	2.66	143	2.66	163	5.56
100	104	2.36	124	3.78	144	3.50	164	7.36
150	105	3.33	125	5.33	145	5.10	165	10.70
200	106	3.75	126	6.00	146	5.54	166	11.64
300	107	5.42	127	8.70	147	7.75	167	16.25
400	108	7.50	128	12.00	148	10.40	168	20.86
600	109	10.25	129	16.40	149	14.00	169	29.40
800	110	15.84	130	25.34				
1200	111	30.00	131	48.00				

Fused switches for National Electrical Code Standard fuses.

For open link or Type A fuses add 25 per cent to unfused list.

Polished finish, add 25 per cent.

Four-pole switches two and one-half times price of double pole.

For 500-volt switches, add 25 per cent.



No. 204.

Single Pole, 250 Volt, Back Connected.

Amps.	Cat. No.	S. P., S. T.	Cat. No.	S. P., D. T.	Cat. No.	S. P., S. T., Fused.	Cat. No.	S. P., D. T., Fused.
25	200	$ .94	220	$1.50	240	$1.30	260	$2.75
35	201	1.08	221	1.74	241	1.60	261	3.36
50	202	1.46	222	2.34	242	2.00	262	4.20
75	203	2.08	223	3.34	243	3.06	263	6.40
100	204	2.92	224	4.66	244	3.86	264	8.10
150	205	4.16	225	6.66	245	5.86	265	12.30
200	206	4.66	226	7.46	246	6.40	266	13.44
300	207	6.66	227	10.66	247	9.06	267	19.00
400	208	9.16	228	14.66	248	12.20	268	25.60
600	209	13.34	229	21.32	249	17.25	269	36.20
800	210	20.00	230	32.00				
1200	211	40.00	231	64.00				

Fused switches for National Code Standard fuses.

For open link or Type A fuses add 25 per cent to unfused list.

Rear fused switches, add 20 per cent to price of front fused.

Polished finish, add 20 per cent.

Four-pole switches, two and one-half times price of double pole.

For 500-volt switches, add 25 per cent.

SWITCHES, Knife.

American Type A Switches (Continued).

Double Pole, 250 Volt, Front Connected.



No. 304.

Amps.	Cat. No.	D. P., S. T.	Cat. No.	D. P., D. T.	Cat. No.	D. P., S. T., Fused.	Cat. No.	D. P., D. T., Fused.
25	300	$1.15	320	$1.84	340	$1.70	360	$3.60
35	301	1.45	321	2.32	341	2.10	361	4.40
50	302	1.88	322	3.06	342	2.60	362	5.44
75	303	2.50	323	4.00	343	4.00	363	8.40
100	304	3.55	324	5.68	344	5.25	364	11.00
150	305	5.00	325	8.00	345	7.60	365	15.94
200	306	5.62	326	9.00	346	8.36	366	17.56
300	307	8.15	327	13.04	347	11.60	367	24.34
400	308	11.25	328	18.00	348	15.66	368	32.66
600	309	15.37	329	24.60	349	21.50	369	45.15
800	310	23.75	330	38.00				
1200	311	45.00	331	72.00				

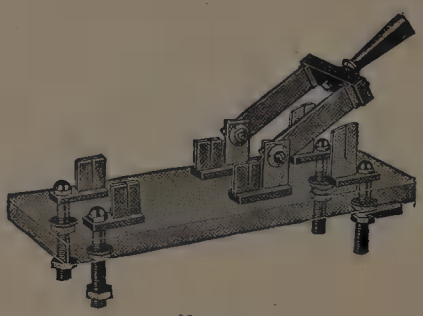
Fused switches for National Electrical Code Standard fuses.

For open link or Type A fuses, add 25 per cent to unfused list. Polished finish, add 25 per cent.

Four-pole switches, two and one-half times price of double pole.

For 500-volt switches, add 25 per cent.

Double Pole, 250 Volt, Back Connected.



No. 446.

Amps.	Cat. No.	D. P., S. T.	Cat. No.	D. P., D. T.	Cat. No.	D. P., S. T., Fused.	Cat. No.	D. P., D. T., Fused.
25	400	$1.40	420	$2.24	440	$2.00	460	$4.20
35	401	1.62	421	2.60	441	2.40	461	5.06
50	402	2.20	422	3.52	442	3.00	462	6.30
75	403	3.12	423	5.00	443	4.60	463	9.64
100	404	4.38	424	7.00	444	5.80	464	12.20
150	405	6.25	425	10.00	445	8.80	465	18.50
200	406	7.00	426	11.20	446	9.60	466	20.16
300	407	10.00	427	16.00	447	13.60	467	28.56
400	408	13.75	428	22.00	448	18.36	468	38.56
600	409	20.00	429	32.00	449	25.86	469	54.30
800	410	30.00	430	48.00				
1200	411	60.00	431	96.00				

Fused switches for National Code Standard fuses.

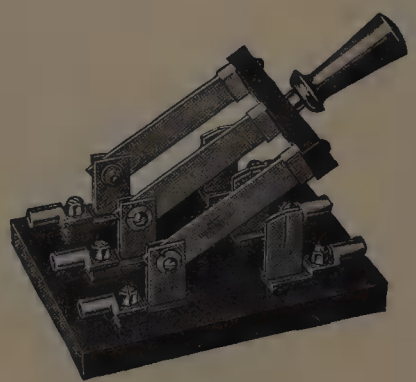
For open link or Type A fuses, add 25 per cent to unfused list.

Rear fused switches, add 20 per cent to price of front fused. Polished finish, add 20 per cent.

Four-pole switches, two and one-half times price of double pole.

For 500-volt switches, add 25 per cent.

Three Pole, 250 Volt, Front Connected.



No. 504.

Amps.	Cat. No.	3 P., S. T.	Cat. No.	3 P., D. T.	Cat. No.	3 P., S. T., Fused.	Cat. No.	3 P., D. T., Fused.
25	500	$1.72	520	$2.76	540	$2.56	560	$5.34
35	501	2.18	521	3.48	541	3.16	561	6.60
50	502	2.82	522	4.60	542	3.90	562	8.20
75	503	3.75	523	6.00	543	6.00	563	12.60
100	504	5.30	524	8.52	544	8.90	564	18.70
150	505	7.50	525	12.00	545	11.40	565	23.94
200	506	8.40	526	13.50	546	12.50	566	26.25
300	507	12.22	527	19.56	547	17.40	567	36.54
400	508	16.86	528	27.00	548	23.45	568	49.25
600	509	23.06	529	36.90	549	32.25	569	67.70
800	510	35.62	530	57.00				
1200	511	67.50	531	108.00				

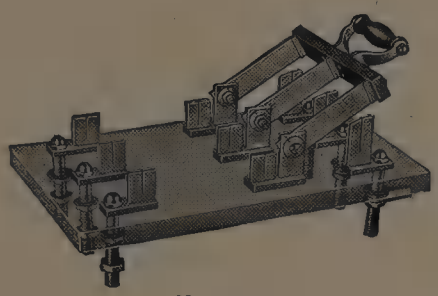
Fused switches for National Electrical Code Standard fuses.

For open link or Type A fuses, add 25 per cent to unfused list. Polished finish, add 25 per cent.

Four-pole switches, two and one-half times price of double pole.

For 500-volt switches, add 25 per cent.

SWITCHES, Knife.



No. 646

American Type A Switches (Continued).

Three Pole, 250 Volt, Back Connected.

Amps.	Cat. No.	3 P., S. T.	Cat. No.	3 P., D. T.	Cat. No.	3 P., S. T., Fused.	Cat. No	3 P., D. T., Fused.
25....	600	$2.10	620	$3.36	640	$3.00	660	$6.30
35....	601	2.44	621	3.90	641	3.60	661	7.56
50....	602	3.30	622	5.28	642	4.50	662	9.44
75....	603	4.68	623	7.50	643	6.90	663	14.50
100....	604	6.56	624	10.50	644	8.70	664	18.25
150....	605	9.38	625	15.00	645	13.20	665	27.70
200....	606	10.50	626	16.80	646	14.40	666	30.25
300....	607	15.00	627	24.00	647	20.40	667	42.85
400....	608	20.60	628	33.00	648	27.80	668	58.40
600....	609	30.00	629	48.00	649	38.75	669	81.42
800....	610	45.00	630	72.00				
1200....	611	90.00	631	144.00				

Fused switches for National Code Standard fuses.

For open link or Type A fuses, add 25 per cent to unfused list.

Rear fused switches, add 20 per cent to price of front fused.

Polished finish, add 20 per cent.

Four-pole switches, two and one-half times price of double pole.

For 500-volt switches, add 25 per cent.

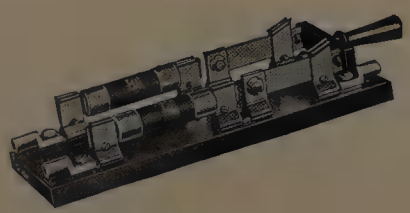
American Type B Switches.

Made only in front connection and plain finish, 250 volts.

Without Fuse Holder.

Amps.	Cat. No.	S. P., S. T.	Cat. No.	S. P., D. T.	Cat No.	D. P., S. T.
15.....	700	$ .32	710	$ .60	720	$ .50
25.....	701	.46	711	.86	721	.68
35.....	702	.58	712	1.08	722	.88
50.....	703	.84	713	1.56	723	1.25
75.....	704	1.26	714	2.38	724	1.88
100.....	705	1.66	715	3.12	725	2.50

Amps.	Cat. No.	D. P., D. T.	Cat. No.	3 P., S. T.	Cat. No.	3 P., D. T.
15.....	730	$ .92	740	$ .75	750	$1.38
25.....	731	1.26	741	1.02	751	1.89
35.....	732	1.66	742	1.32	752	2.50
50.....	733	2.38	743	1.88	753	3.56
75.....	734	3.56	744	2.82	754	5.34
100.....	735	4.66	745	3.75	755	7.00



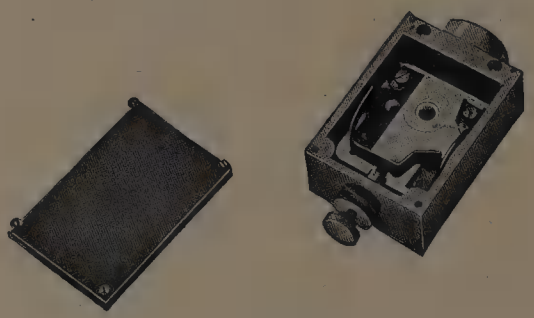
No. 784.

With Fuse Holder (for Nat. Code Fuses).

Amps.	Cat. No.	S. P., S. T.	Cat. No.	S. P., D. T.	Cat. No.	D. P., S. T.
15.....	760	$ .56	770	$1.20	780	$ .85
25.....	761	.68	771	1.46	781	1.04
50.....	762	1.16	772	2.44	782	1.75
75.....	763	1.70	773	3.56	783	2.56
100.....	764	2.34	774	4.86	784	3.50

Amps.	Cat. No.	D. P., D. T.	Cat. No.	3 P., S. T.	Cat. No.	3 P., D. T.
15.....	790	$1.80	800	$1.28	810	$2.70
25.....	791	2.20	801	1.56	811	3.30
50.....	792	3.65	802	2.62	812	5.40
75.....	793	5.35	803	3.84	813	8.02
100.....	794	7.30	804	5.24	814	10.92

SWITCHES, Line (see Switches, section)



No. 22694.



No. 21860.



No. 22324.



No. 22691.

SWITCHES, Marine (see also Boxes, junction, and Receptacles, marine).

W. T. Pulsating Switches.

		Each.
Arranged for Conduit Wiring.		
No. 22694.	Switch complete	$4.50
,, 25029.	Box	3.00
,, 22516.	Cover for box	.55
,, 25013.	Interior fitting	.50
Arranged for Moulding Wiring.		
No. 22514.	Switch complete	$4.00
,, 22515.	Box	2.75
,, 22516.	Cover for box	.55
,, 25013.	Interior fitting	.50

W. T. Single-pole, 5-Ampere Switches.

		Each.
Arranged for Conduit Wiring.		
No. 21860.	Switch complete	$3.60
,, 25038.	Box	1.65
,, 25039.	Cover for box	.75
,, 22491.	Switch handle	.20
,, 25000.	Interior fitting	.65
Arranged for Moulding Wiring.		
No. 22474.	Switch complete	$4.25
,, 22475.	Box	2.50
,, 22476.	Cover for box	.90
,, 22491.	Switch handle	.20
,, 25000.	Interior fitting	.65

W. T. Double-pole, 25-Ampere Switches.

		Each.
Arranged for Conduit Wiring.		
No. 22324.	Switch complete, without handle	$5.00
No. 25024.	Box	2.65
,, 25040.	Cover for box, with cap	.85
No. 22513.	Cap for cover	.20
,, 25004.	Switch handle	.35
,, 25003.	Interior fitting	1.30
Arranged for Moulding Wiring.		
No. 26358.	Switch complete, without handle (takes Type " C " gasket),	$5.00
No. 22530.	Switch complete, without handle (takes Type " D " gasket),	5.00
No. 22531.	Box	2.75
,, 22533.	Cover for box, with cap	.90
No. 22513.	Cap for cover	.20
,, 25004.	Switch handle	.35
,, 25003.	Interior fitting	1.30

W. T. Double-pole, 40-Ampere Switches.

		Each.
Arranged for Conduit Wiring.		
No. 22691.	Switch complete, without handle	$12.00
No. 25026.	Box	7.00
,, 25042.	Cover for box, with cap	1.25
No. 22513.	Cap for cover	.20
,, 25004.	Switch handle	.35
,, 25008.	Interior fitting	3.50
Arranged for Moulding Wiring.		
No. 22681.	Switch complete, without handle	$11.25
No. 25006.	Box	6.00
,, 25007.	Cover for box, with cap	1.75
No. 22513.	Cap for cover	.20
,, 25004.	Switch handle	.35
,, 25008.	Interior fitting	3.50

SWITCHES, Marine (Continued).



No. 22692.

W. T. Double-pole, Double-throw, 40-Ampere Switches.

		Each.
	Arranged for Conduit Wiring.	
No. 22692.	Switch complete, without handle	$12.50
No. 25027.	Box	7.25
,, 25043.	Cover for box, with cap	1.75
No. 22513.	Cap for cover	.20
,, 25004.	Switch handle	.35
,, 25011.	Interior fitting	4.50
	Arranged for Moulding Wiring.	
No. 22685.	Switch complete, without handle	$12.75
No. 25009.	Box	6.50
,, 25010.	Cover for box, with cap	1.75
No. 22513.	Cap for cover	.20
,, 25004.	Switch handle	.35
,, 25011.	Interior fitting	4.50



No. 22693.

W. T. Double-pole, Double-throw, 100-Ampere Switches.

		Each.
	Arranged for Conduit Wiring.	
No. 22693.	Switch complete, without handle	$19.00
No. 25028.	Box	10.25
,, 25044.	Cover for box, with cap	1.80
No. 22513.	Cap for cover	.20
,, 25004.	Switch handle	.35
,, 25012.	Interior fitting	6.75
	Arranged for Moulding Wiring.	
No. 22602.	Switch complete, without handle	$17.75
No. 22603.	Box	8.50
,, 22604.	Cover for box, with cap	2.50
No. 22513.	Cap for cover	.20
,, 25004.	Switch handle	.35
,, 25012.	Interior fitting	6.75



No. 21861.

W. T. Single-pole, 5-Ampere Combined Switches and Receptacles, with Attaching Plug.

		Each.
	Arranged for Conduit Wiring.	
No. 21861.	Switch and receptacle complete, with plug,	$4.25
No. 25023.	Box	1.45
,, 22505.	Cover for box, with cap	.95
No. 22513.	Cap for cover	.20
,, 22491.	Switch handle	.20
,, 29431.	Receptacle plug complete	.75
No. 25001.	Interior fitting	.75
	Arranged for Moulding Wiring.	
No. 63758.	Switch and receptacle complete, with plug,	$5.25
No. 22475.	Box	2.50
,, 22505.	Cover for box, with cap	.95
No. 22513.	Cap for cover	.20
,, 22491.	Switch handle	.20
,, 29431.	Receptacle plug complete	.75
No. 25001.	Interior fitting	.75

SWITCHES, Marine (Continued).



No. 22690.

W. T. Double-pole, 25-Ampere Combined Switches and Receptacles, with Attaching Plug.

	Each.
Arranged for Conduit Wiring.	
No. 22690. Switch and receptacle complete, with plugs; without handle	$7.50
No. 25025. Box	2.60
,, 25041. Cover for box, with caps	1.25
No. 22513. Cap for cover	.20
,, 25004. Switch handle	.35
,, 22679. Receptacle plug complete	.75
No. 25005. Interior fitting	1.65
Arranged for Moulding Wiring.	
No. 26359. Switch and receptacle complete, with plugs; without handle (takes Type "C" gasket)	$7.75
No. 22550. Switch and receptacle complete, with plugs; without handle (takes Type "D" gasket)	7.75
No. 22551. Box	3.00
,, 22552. Cover for box, with caps	1.50
No. 22513. Cap for cover	.20
,, 25004. Switch handle	.35
,, 22679. Receptacle plug complete	.75
No. 25005. Interior fitting	1.65



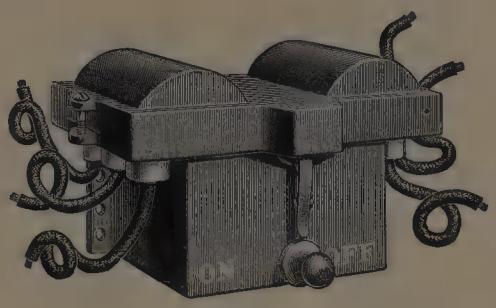
No. 22695.

W. T. Combination Junction Box, Switch and Receptacle, with Attaching Plug.

	Each.
Arranged for Conduit Wiring.	
No. 22695. Junction box, switch, and receptacle complete	$9.00
No. 25030. Box	4.75
,, 22559. Cover for box, with cap	1.30
No. 22513. Cap for cover	.20
,, 22491. Switch handle	.20
,, 29431. Receptacle plug complete	.75
No. 25015. Interior fitting	2.35
Arranged for Moulding Wiring.	
No. 63759. Junction box, switch, and receptacle complete	$8.50
No. 22557. Box	3.75
,, 22559. Cover for box, with cap	1.30
No. 22513. Cap for cover	.20
,, 22491. Switch handle	.20
,, 29431. Receptacle plug complete	.75
No. 25015. Interior fitting	2.35

SWITCHES, Oil Break.

Weatherproof Oil Switches.

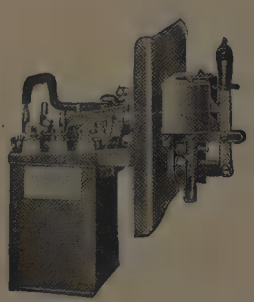


Oil Break Switch.

Used as disconnecting switches for constant current transformers and reactive coils, banks of transformers, synchronous, and induction motors, isolating feeders, and mains from main systems, at junction of overhead and underground wires, etc.

These switches have been thoroughly tried out by several years of actual service among the leading central stations of the country and will safely meet the demand for switches of this character to be used in exposed locations on potentials not exceeding 7,000 volts. Weights and dimensions are approximate.

No.	Amps.		Volts.	Casing.	Size in Ins.	Weight.	Each.
S-2300.	60	S. P., S. T.	3000	2 B	13½ x 3½ x 8½	22	$20.00
S-2301.	150	,,	3000	2 C	16 x 3½ x 9½	32	37.50
S-2302.	300	,,	3000	2 C	16 x 3½ x 9½	32	47.50
S-2303.	60	,,	4600	2 B	13½ x 3½ x 8½	22	30.00
S-2304.	150	,,	4600	2 C	16 x 3½ x 9½	32	48.00
S-2305.	100	,,	6000	2 D	.....	..	60.00
S-2310.	10	Arc C. O.	5000	4 B	13½ x 6 x 8½	34	$30.00
S-2311.	60	D. P., S. T.	3000	4 B	13½ x 6 x 8½	34	30.00
S-2312.	150	,,	3000	4 C	15½ x 6 x 9½	42	52.50
S-2313.	300	,,	3000	4 C	15½ x 6 x 9½	42	65.00
S-2314.	60	,,	4600	4 B	13½ x 6 x 8½	34	45.00
S-2315.	150	,,	4600	4 C	15½ x 6 x 9½	42	67.20
S-2316.	60	S. P., D. T.	3000	4 B	13½ x 6 x 8½	34	30.00
S-2317.	150	,,	3000	4 C	15½ x 6 x 9½	42	52.50
S-2318.	100	D. P., S. T.	6900	4 D	18½ x 7 x 12	65	84.00
S-2320.	60	T. P., S. T.	3000	6 B	13½ x 8 x 8½	41	$45.00
S-2321.	150	,,	3000	6 C	16 x 8 x 9½	58	70.00
S-2322.	300	,,	3000	6 C	16 x 8 x 9½	58	85.00
S-2323.	60	,,	4600	6 B	13½ x 8 x 8½	41	64.80
S-2324.	150	,,	4600	6 C	16 x 8 x 9½	58	89.60
S-2325.	100	,,	6900	6 D	18½ x 9½ x 12	90	120.00
S-2326.	60	4 P., S. T.	3000	8 B	13½ x 10 x 8½	55	$57.50
S-2327.	150	,,	3000	8 C	16 x 10 x 9½	75	82.50
S-2328.	300	,,	3000	8 C	16 x 10 x 9½	75	102.50
S-2329.	60	,,	4600	8 B	13½ x 10 x 8½	55	73.60
S-2330.	150	,,	4600	8 C	16 x 10 x 9½	75	110.00
S-2331.	60	D. P., D. T.	3000	8 B	13½ x 10 x 8½	55	57.50
S-2332.	150	,,	3000	8 C	16 x 10 x 9½	75	82.50



G. E. Oil Break Switch.

G. E. Oil Break Switches.

Compact in design. The oil-vessel, contacts, and operating mechanism are all supported from a common frame, the stationary contacts are supported separately by this frame, and are insulated by porcelain bushings. The oil-vessel is lined with laminated wood, and is furnished with barriers of same material.

These switches are made in several styles; without overload release, with overload release having coils connected in series with main circuits, and with overload release having coils connected to the secondaries of current transformers.

Send for special bulletin and prices.

SWITCHES, Overhead (see Frogs).



No. 50712.



No. 50725.



No 28841.


No. 42862.



No. 2359.


No. 41.


Edward's.

SWITCHES, Panel (see Panelettes and Cut-Outs, Edison plug).

SWITCHES, Pendant.

G. E. Pendant Switches.

Made in two styles, push and key, the latter form for controlling one or two lights only.

The pendant push-button type of switch is admirably adapted for use with either temporary or permanent installations of incandescent or multiple arc lamps. With fan motors these switches will be found equally convenient, as they provide for the control of motors located at the most advantageous points, regardless of accessibility.

		Std. Pkg.	Each.
No. 50712.	Pendant push-button switch, 3 amperes, 110 volts, with ⅛-in. nozzle	100	$ .50
No. 38647.	Ditto, ⅜-in. nozzle	100	.60
,, 50725.	Pendant push-button switch, 1½ amperes, 220 volts; 6 amperes, 110 volts, double-break, with ⅛-in. nozzle	100	.80
No. 35249.	Pendant push-button switch, 3 amperes, 220 volts; 6 amperes, 110 volts, double-break, with ⅜-in. nozzle	100	.90
No. 28841.	Pendant key switch, 1 ampere, 220 volts	100	.35
,, 42862.	Two-button pendant push-button switch, 5 amperes, 250 volts; 10 amperes, 125 volts	100	.80

All working parts of this switch are carefully designed and the greatest care is exercised in the assembling, resulting in a switch with smooth and easy action. This switch has a positive, quick make-and-break movement with knife-blade contact which operates by means of two buttons in the bottom — a miniature flush pocket switch movement, perfect in every detail. The buttons are finished differently in order that a person may tell at a glance or by the touch whether the current is on or off. The switch is small, compact, and cannot get out of order. The standard finish is polished brass; other finishes can be furnished on special order.

Perkins Pendant Switches, 250 Volt.

					Std. Pkg.	Each.
No. 2250.	5 amps.	S. P.	⅛-inch cap		100	$. 59
,, 2270.	5 ,,	,,	⅜ ,, ,,		100	.60
,, 2370.	5 ,,	,,	with moulded bushing		100	.50
,, 2251.	10 ,,	,,	⅛-inch cap		100	.80
,, 2271.	10 ,,	,,	⅜ ,, ,,		100	.90
,, 2369.	10 ,,	,,	with moulded bushing		100	.80
,, 2353.	3 ,,	,,	⅛-inch cap		100	.80
,, 2354.	3 ,,	,,	⅜ ,, ,,		100	.90
,, 2359.	3 ,,	,,	with moulded bushing		100	.80

Sarco Pendant Switch.

Inlaid pearl lighting button, with depressed "put-out" button. Can be used for reënforced as well as regular cord, as it has an interchangeable reduction bushing. Two outside shells screw together, and switch has top connections.

		Std. Pkg.	Each.
No. 41.	Polished brass	100	$ .80
,, 45.	Nickel plated	100	.95
,, 49.	Old brass	100	.95

SWITCHES, Plug (see Receptacles).

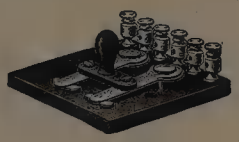
SWITCHES, Pole Changing.

Edward's Pole Changing Switch, No. 165.

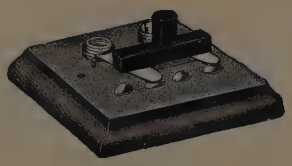
Made of polished hard rubber, either front or back connected.

Front connected ..... each, $1.50

Back ,, ... ,, 2.00



Mesco.



No. 1650.



No. 5027.

SWITCHES, **Pole Changing** (Continued).

Mesco Pole Changing Switches.

Hard Rubber Base.

All metal parts made of brass, nickel plated. Polished rubber knob and base.

No. 1648. With binding-posts ..... each, $1.65
,, 1649. Without binding-posts ..... ,, 1.40

Wood Base.

Walnut or oak polished bases, metal parts nickel plated.

No. 1650. With binding-posts ..... each, $1.05
,, 1651. Without binding-posts ..... ,, .80

SWITCHES, **Pull** (see Switches, ceiling).

Hubbell Pull Switch.

Standard length of chain on each switch, 8 inches.

Switch furnished with chain over 8 inches in length, add to list, per foot ..... $ .10

The pull switch is a handy device for a variety of purposes, as it can be placed at any height, yet easily operated by means of the chain, which may be of any desired length.

	Std. Pkg.	Pkg. Weight.	Price.
No. 5027. 5-ampere pull switch.....	50	14 lbs.	$ .60

SWITCHES, **Push** (see Switches, snap, flush, and push.)

SWITCHES, **Rubber** (see Switches, pole changing, and Switches, wood and rubber).

SWITCHES, **Section.**

G. E. Section Switches.

In these switch boxes, the movable side of the switch is connected to the trolley line, and the box is so constructed that the cover can be closed and locked, whether the switch be open or closed, thus preventing any interference with the line by unauthorized persons.



No. 40307. No. 40321.

With Box.

Single Throw.	Double Throw.	Ampere Capacity.
No. 40305.	40306	200
,, 40307.	40308	400
,, 40321.*	.....	400
,, 40309.	40310	600
,, 40311.	40312	1200

* Has fuse block.

Without Box.

Single Throw.	Double Throw.	Ampere Capacity.
No. 40313.	40314	200
,, 40315.	40316	400
,, 40317.	40318	600
,, 40319.	40320	1200

Prices on application.



No. 41403.

Hill Railway Feeder Cut-out Boxes.

Prices include wooden box, with switch complete.

No. 41403. 400 amps., weight 20 lbs. ..... each, $9.75
,, 41404. 600 ,, ,, 22 ,, ... ,, 15.60
,, 41405. 800 ,, ,, 24 ,, ... ,, 21.85
,, 41406. 1200 ,, ,, 30 ,, ... ,, 42.90

SWITCHES, **Service.**

G. E. Combination Service Switches.

A very convenient and serviceable adjunct to service lines will be found in the combination service switch and cut-out shown in the accompanying illustration. This cut-out is particularly adapted to use on lighting circuits as an entrance switch inside the buildings, but may be used on any circuit the capacity of which does not exceed that of the cut-out. The device consists of the General Electric combined switch and plug cut-out mounted in a substantial iron box. The cover is hinged to the box and when closed is held securely in place by means of a wing-nut. The cover may be fastened in place while the switch is either open or closed.



No. 33664. No. 33665.

No. 33664. Double pole, single throw, 25 amperes, 125 volts, in iron box $3.00
No. 33665. Triple pole, single throw, 25 amperes, 125 volts, in iron box 4.00

SWITCHES, Service (Continued).

D. & W. Service Switches.

No.	Des ription.	Length Fuse Inches.	Centres In.	Pkg. Quan.	Pkg. Net Wgt.	List Price.
458.	Type B, fused service switch, 2 wire, for N. E. code std. fuses, 31 to 60 amp., 250 volts	3	...	25	200	$6.40
459.	Type B-1, fused selective service switch, 3 wire, for N. E. code std. fuses, 31 to 60 amp., 250 volts	3	...	25	350	9.00
460.	Type B-2, fused service switch, 2 wire, for Type C fuses, 31 to 60 amp., 250 volts	$3\frac{5}{8}$	...	25	262	7.80
463.	Type B-4, fused selective service switch, 3 wire, for Type C fuses, 31 to 60 amp., 250 volts	$3\frac{5}{8}$	...	25	390	10.00
464.	Type D, fused service switch, 2 wire, for Type A fuses, 31 to 60 amp., 250 volts	..	$4\frac{9}{16}$	25	396	9.00
468.	Type D-2, fused service switch, 2 wire, for Type A fuses, 61 to 125 amp., 250 volts	..	$5\frac{13}{16}$	25	458	15.00
470.	Type F, fused service switch, 3 wire, for Type A fuses, 31 to 60 amp., 250 volts	..	$4\frac{9}{16}$	25	537	12.00
472.	Type F-2, fused service switch, 3 wire, for Type A fuses, 61 to 125 amp., 250 volts	..	$5\frac{13}{16}$	20	464	22.00
474.	Type F-3, fused service switch, 3 wire, for Type A fuses, 126 to 300 amp., 250 volts	..	$6\frac{3}{4}$	10	538	40.00



No. 459.

Hill Service Switch Box.

Double-Pole, Single-Throw Switch, 250 Volts.

Size of Fused Switches adapted to Boxes.

No.	42686.	30 amperes, New Code	each,	$7.50
,,	42687.	60 ,, ,, ,,	,,	12.50
,,	42702.	100 ,, ,, ,,	,,	17.50
,,	9303.	200 ,, ,, ,,	,,	25.00

Three-Pole, Single-Throw Switch, 250 Volts.

Size of Fused Switches adapted to Boxes.

No.	42703.	30 amperes, New Code	each,	$10.00
,,	42638.	60 ,, ,, ,,	,,	15.00
,,	42639.	100 ,, ,, ,,	,,	20.00
,,	9304.	200 ,, ,, ,,	,,	27.50



Service Switch Box.

Double-Pole, Single-Throw Switch, 600 Volts.

Size of Fused Switches adapted to Boxes.

No.	9305.	30 amperes, New Code	each,	$12.50
,,	9306.	60 ,, ,, ,,	,,	17.50
,,	9307.	100 ,, ,, ,,	,,	25.00

Three-Pole, Single-Throw Switch, 600 Volts.

Size of Fused Switches adapted to Boxes.

No.	9308.	30 amperes, New Code	each,	$15.00
,,	9309.	60 ,, ,, ,,	,,	20.00
,,	9310.	100 ,, ,, ,,	,,	30.00

SWITCHES, Service (Continued).



No. 120.

Teco Service Switches.

Plug Fuse Style.

Complete with combination switch and plug cut-out, but without fuse plugs. National Electrical Code Standard. Standard package, 25.

No.			Volts.		Approx. Size, Outside. L. W. D.	Price.
120	D. P.,	25 amps.,	110	Open work,	8½ x 4½ x 4½	$3.00
190	,,	25 ,,	110	½-in. conduit,	8½ x 4½ x 4½	3.00
220	,,	30 ,,	220	Open work,	10½ x 5½ x 4½	3.50
290	,,	30 ,,	220	¾-in. conduit,	10½ x 5½ x 4½	3.50
230	T. P.,	25 ,,	220	Open work,	11 x 6 x 4	4.50
390	,,	25 ,,	220	¾-in. conduit,	11 x 6 x 4	4.50
490	4 P.,	25 ,,	*110	Open work,	8½ x 8½ x 4¾	7.00
491	4 P.,	25 ,,	*110	1-in. conduit,	8½ x 8½ x 4¾	7.00
492	4 P.,	30 ,,	*220	Open work,	13½ x 10 x 5	9.00
493	4 P.,	30 ,,	*220	1-in. conduit,	13½ x 10 x 5	9.00

* Voltage between poles.



No. 226.

Enclosed Fuse Type (ferrule).

For ferrule contact fuses, complete except fuses. National Electrical Code Standard. Standard package, 10. For 250 volts direct or 440 volts alternating current.

No.				Approx. Size, Outside. L. W. D.	Price.
226	D. P.,	60 amps.,	for open work,	13 x 6½ x 4	$6.00
2265	,,	60 ,,	,, 1-in. conduit,	13 x 6½ x 4	6.00
236	T. P.,	60 ,,	,, open work,	13½ x 10 x 5	9.50
2365	,,	60 ,,	,, 1¼-in. conduit,	13½ x 10 x 5	9.50
246	4 P.,	60 ,,	,, open work,	12 x 13 x 4	13.00
2465	4 P.,	60 ,,	,, 1½-in. conduit,	12 x 13 x 4	13.00



No. 2210.

Enclosed Fuse Type (knife blade).

For knife blade contact fuses, complete except fuses. National Electrical Code Standard. Standard package, 10. For 250 volts direct or 440 volts alternating current.

No.				Approx. Size, Outside. L. W. D.	Price.
2210	D. P.,	100 amps.,	for open work,	18½ x 8 x 5½	$12.00
2212	,,	100 ,,	,, 1¼-in. conduit,	18½ x 8 x 5½	12.00
2310	T. P.,	100 ,,	,, open work,	18½ x 11½ x 5½	18.00
2312	,,	100 ,,	,, 1½-in. conduit,	18½ x 11½ x 5½	18.00
2220	D. P.,	200 ,,	,, open work,	22 x 8½ x 5½	20.00
2222	,,	200 ,,	,, 2-in. conduit.	22 x 8½ x 5½	20.00
2320	T. P.,	200 ,,	,, open work,	22 x 12½ x 5½	30.00
2322	,,	200 ,,	,, 2½-in. conduit,	22 x 12½ x 5½	30.00
2240	,,	400 ,,	,, open work,	28½ x 10½ x 7¼	40.00
2242	D. P.,	400 ,,	,, 3-in. conduit,	28½ x 10½ x 7¼	40.00
2340	T. P.,	400 ,,	,, open work,	28½ x 15 x 7¼	60.00
2342	,,	400 ,,	,, 3½-in. conduit,	28½ x 15 x 7¼	60.00
2250	D. P.,	600 ,,	,, open work,	33½ x 11½ x 8	60.00
2252	,,	600 ,,	,, 5-in. conduit,	33½ x 11½ x 8	60.00
2350	T. P.,	600 ,,	,, open work,	33½ x 17 x 8	90.00
2352	,,	600 ,,	,, 5-in. conduit,	33½ x 17 x 8	90.00



No. 187.

Watertight Style.

Fitted with rubber gasket and bronze thumb nut. National Electrical Code Standard. Standard package, 25. Complete except fuses.

No.			Volts.		Approx. Size. L. W. D.	Price.
187	D. P.,	25 amps.,	125	½-in. conduit,	8½ x 4½ x 3¾	$5.00
188	,,	30 ,,	250	¾ ,, ,,	11½ x 7 x 4½	6.00
189	T. P.,	25 ,,	125	1 ,, ,,	11½ x 7 x 4½	7.00



No. 91.

Gutter Box Switch and Cut-Out.

Complete except fuses. National Electrical Code Standard. Standard package, 10.

No.			Volts.		Approx. Size. L. W. D.	Price.
91	D. P.,	25 amps.,	*125	½-in. conduit,	10½ x 5½ x 4½	$4.50
92	,,	30 ,,	*250	¾ ,, ,,	13 x 6½ x 4	5.50
93	T. P.,	25 ,,	*125	¾ ,, ,,	13½ x 10 x 4½	6.00
94	4 P.,	25 ,,	*125	1 ,, ,,	12 x 13 x 4½	10.00

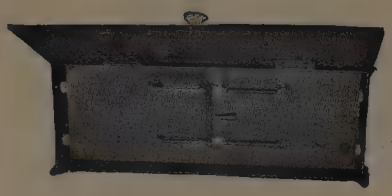
* Voltage between poles.

SWITCHES, Service.

Teco Service Switches (Continued).

500-Volt Entrance Switch.

Complete without fuses. Standard package, 10.



No. 480.

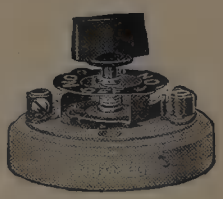
	Amperes.	Open Work or Conduit.	Approx. Size. L. W. D.	List Price.
No. 480.	10	Open,	17½ x 9½ x 4½	$12.00
,, 481.	10	½-in. conduit,	17½ x 9½ x 4½	12.00
,, 482.	25	Open,	22 x 8½ x 4½	16.00
,, 483.	25	¾-in. conduit,	22 x 8½ x 4½	16.00
,, 484.	60	Open,	23 x 10½ x 4½	24.00
,, 485.	60	1-in. conduit,	23 x 10½ x 4½	24.00
,, 486.	100	Open,	23 x 10½ x 4½	30.00
,, 487.	100	1¼-in. conduit,	23 x 10½ x 4½	30.00
,, 488.	200	Open,	37 x 13 x 5½	75.00
,, 489.	200	2-in. conduit,	37 x 13 x 5½	75.00

SWITCHES, Snap, Flush, and Push.

Hart Snap Switches.

The current carrying parts of all Hart switches are thoroughly insulated from the mechanism, sheet mica being used in most cases. The covers are lined with hard fibre, $\frac{1}{32}$ inch thick. Double or "knife switch" form of contacts are used.

Patent self-adjusting handles are used on all switches.



Nutmeg Switch.

Hart Nutmeg Switches.

	Std. Pkg.	Each.
No. 219. 5 amps., S. P., Conc. Indicating	252	$ .32
,, 319. 5 ,, ,, Open ,,	252	.32

Single Pole, 110 Volts.

These switches are made plain or with indicating dial at the same price. Indicating switches, closed base, are sent unless otherwise specified. Switches packed 6 in a box.



Showing Lock Attachment with Key.

				Std. Pkg.	Each.
No. 20.*	5	amps., S. P.,	plain cover	102	$ .40
,, 120.†	5	,, ,,	plain cover	102	.40
,, 220.*	5	,, ,,	indicating cover	102	.40
,, 320.†	5	,, ,,	indicating cover	102	.40
No. 21.*	10	amps., S. P.,	plain cover	102	.55
,, 121.†	10	,, ,,	plain cover	102	.55
,, 221.*	10	,, ,,	indicating cover,	102	.55
,, 321.†	10	,, ,,	indicating cover,	102	.55
Lock attachment, without key					.12
Key for same					.06

* Closed base.
† Open base.

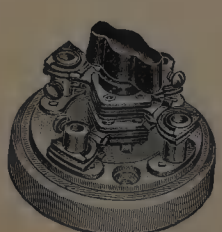
Double Pole, 250 Volts.

These switches are made plain or with indicating dial at the same price. Indicating switches, closed base, are sent unless otherwise specified.



No. 220.

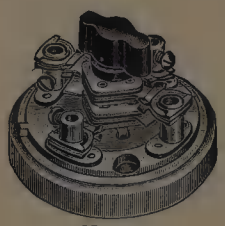
				Std. Pkg.	Each.
No. 22.*	10	amps., D. P.,	plain cover	102	$ .76
,, 122.†	10	,, ,,	plain cover	102	.76
,, 222.*	10	,, ,,	indicating cover,	102	.76
,, 322.†	10	,, ,,	indicating cover,	102	.76
No. 32.*	20	amps., D. P.,	plain cover	24	1.20
,, 132.†	20	,, ,,	plain cover	24	1.20
,, 432.*	20	,, ,,	indicating cover,	24	1.20
,, 532.†	20	,, ,,	indicating cover,	24	1.20
No. 42.*	35	amps., D. P.,	plain cover	12	1.60
,, 142.†	35	,, ,,	plain cover	12	1.60
,, 442.*	35	,, ,,	indicating cover,	12	1.60
,, 542.†	35	,, ,,	indicating cover,	12	1.60
Lock attachment, without key					.12
Key for same					.06



No. 22.

* Closed base.
† Open base.

SWITCHES, Snap, Flush, and Push.



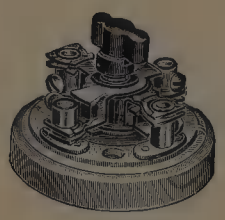
No. 23.

Hart Snap Switches (Continued).

Three Way, 110 Volts.

Three-way switches are used for controlling a group of lights from either one of two points, one switch being located at each point. Cannot be made indicating.

		Std. Pkg.	Each.
No. 23.	10 amps., 3 way, closed base	54	$ .76
,, 123.	10 ,, ,, open base	54	.76
,, 33.	20 ,, ,, closed base	12	1.20
,, 133.	20 ,, ,, open base	12	1.20
,, 43.	35 ,, ,, closed base	12	1.60
,, 143.	35 ,, ,, open base	12	1.60
Lock attachment, without key			.12
Key for same			.06

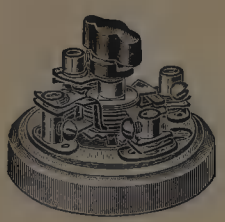


No. 24.

Four Way, 110 Volts.

A four-way or commutation switch is used in connection with two three-way switches for controlling a group of lights from three points. This number may be increased indefinitely by connecting in a four-way switch between the two three-way switches at each additional point desired. Cannot be made indicating.

		Std. Pkg.	Each.
No. 24.	10 amps., 4 way, closed base	12	$ .86
,, 124.	10 ,, ,, open base	12	.86
Lock attachment, without key			.12
Key for same			.06



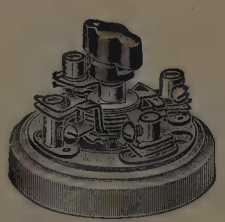
No. 29.

Two-Section Electrolier, 110 Volts.

For controlling the lights on an electrolier in two sections.

The first quarter turn lights lamps in Group No. 1. The second quarter turn lights Group No. 2, in addition to No. 1. The third quarter turn extinguishes Group No. 2, leaving No. 1 still burning. The fourth quarter turn puts all out.

		Std. Pkg.	Each.
No. 29.	10 amps., electrolier, closed base, plain cover	12	$ .86
,, 129.	10 ,, ,, open base, ,, ,,	12	.86
,, 229.	10 ,, ,, closed base, indicating cover	12	.86
,, 329.	10 ,, ,, open base, ,, ,,	12	.86
Lock attachment, without key			.12
Key for same			.06



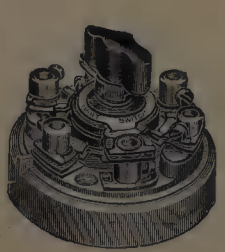
No. 25.

Three-Section Electrolier, 110 Volts.

For controlling the lights on an electrolier in three sections.

The first quarter turn lights the lamps in Group No. 1, the second quarter turn lights Group Nos. 1 and 2, the third quarter turn lights all the lamps, the fourth quarter turns all out.

		Std. Pkg.	Each.
No. 25.	10 amps., electrolier, closed base, plain cover	12	$ .86
,, 125.	10 ,, ,, open base, ,, ,,	12	.86
,, 225.	10 ,, ,, closed base, indicating cover	12	.86
,, 325.	10 ,, ,, open base, ,, ,,	12	.86
Lock attachment, without key			.12
Key for same			.06



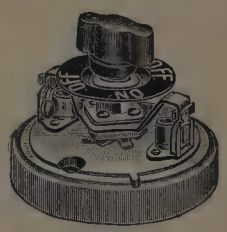
No. 26.

Triple Pole, 220 Volts.

These switches are made plain or with indicating dial at the same price. Indicating switches are sent unless otherwise ordered.

		Std. Pkg.	Each.
No. 26.	10 amps., T. P., closed base, plain cover	12	$2.00
,, 126.	10 ,, ,, open base, ,,	12	2.00
,, 226.	10 ,, ,, closed base, indicating cover	12	2.00
,, 326.	10 ,, ,, open base, ,,	12	2.00
No. 36.	20 amps., T. P., closed base, plain cover	12	2.20
,, 136.	20 ,, ,, open base, ,,	12	2.20
,, 436.	20 ,, ,, closed base, indicating cover	12	2.20
,, 536.	20 ,, ,, open base, ,,	12	2.20
No. 46.	35 amps., T. P., closed base, plain cover	12	2.60
,, 146.	35 ,, ,, open base, ,,	12	2.60
,, 446.	35 ,, ,, closed base, indicating cover	12	2.60
,, 546.	35 ,, ,, open base, ,,	12	2.60
Lock attachment, without key			.12
Key for same			.06

SWITCHES, Snap, Flush, and Push.



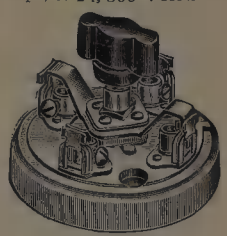
3-Amp., S. P., 500-Volt Switch.

Hart Snap Switches (Continued).

Single Pole, 500 Volts.

All 500-volt switches, except three-way, are sent with indicating dial unless otherwise ordered. Covers are very thoroughly insulated.

No.		Std. Pkg.	Each.
20½.	S. P., 500-volt switch, closed base, plain cover,	102	$ .60
120½.	,, 500 ,, ,, open base, ,,	102	.60
220½.	,, 500 ,, ,, closed base, indc. cover,	102	.60
320½.	,, 500 ,, ,, open base, ,,	102	.60
21½.	S. P., 500-volt switch, closed base, plain cover,	51	$1.20
121½.	,, 500 ,, ,, open base, ,,	51	1.20
221½.	,, 500 ,, ,, closed base, indc. cover,	51	1.20
321½.	,, 500 ,, ,, open base, ,,	51	1.20



1-Amp. 3-Way.

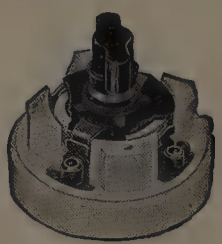


3-Amp., 2-Circuit Switch.

Three-Way, Two-Circuit, 500 Volts.

This switch is especially designed for lights on electric cars, where there are four lights inside and one at each end, outside the car. The four inside lights, together with one end light, are turned "on" or "off" successively by the first two quarter turns of the handle. The next two quarter turns of the handle turn "on" and "off," successively, the inside lights and the other end light.

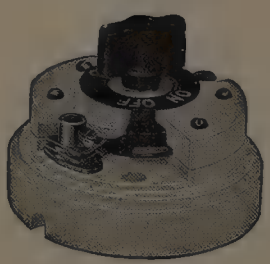
		Std. Pkg.	Each.
No. 23½.	1-amp., 3-way, 500-volt switch, closed base,	102	$ .70
,, 123½.	1 ,, 3 ,, 500 ,, ,, open base.	102	.70
,, 27.	3-amp., 2-circuit, 500-volt switch, closed base, plain cover	54	.76
No. 127.	3-amp., 2-circuit, 500-volt switch, open base, plain cover	54	.76
No. 227.	3-amp., 2-circuit, 500-volt switch, closed base, indicating cover	54	.76
No. 327.	3-amp., 2-circuit, 500-volt switch, open base, indicating cover	54	.76



5-Amp. 3-Way 500 Volt.
No. 53½, Closed Base.
No. 153½, Open Base.

Barrier Switches, 500 Volts.

				Std. Pkg.	Each.
No. 50½.	5 amps.,	S. P.,	closed base, plain	102	$ .70
,, 150½.	5 ,,	,,	open base, ,,	102	.70
,, 250½.	5 ,,	,,	closed base, indicating	102	.70
,, 350½.	5 ,,	,,	open base, ,,	102	.70
,, 53½.	5 ,,	3-way,	closed base, plain	102	.90
,, 153½.	5 ,,	,,	open base, ,,	102	.90
,, 441½.	20 ,,	S. P.,	closed base, indicating	50	1.70
,, 541½.	20 ,,	,,	open base, ,,	50	1.70
,, 257.	5 ,,	2-cir.,	closed base, ,,	54	1.10
,, 357.	5 ,,	,,	open base, ,,	54	1.10
,, 247.	20 ,,	,,	closed base, ,,	50	1.85
,, 347.	20 ,,	,,	open base, ,,	50	1.85
Lock attachment for switches, not including key					.12
Key for lock attachment					.06



20 Amp., S. P., 500 Volt.
No. 441½, Closed Indicating.
No. 541½, Open Indicating.

Heater Switches, 500 Volts.

For controlling electric heaters in sections, gives three degrees of heat. Can be turned in one direction only.

No. 800. 15-amp., 500-volt, three-degree heater switch..... $3.00

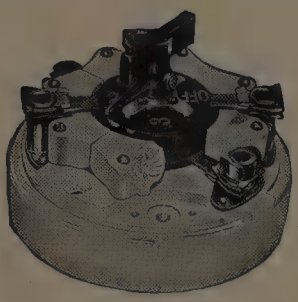


No. 800.

The following style of heater switch gives three degrees of heat, 1–2–3–off, and can be turned in either direction. It is provided with a double indicating device, for showing number of heater sections in circuit, first by means of an indicating dial which shows through the cover, and second by means of a

(*Continued on next page.*)

SWITCHES, Snap, Flush, and Push.



3-Degree, 35-Amp.
No. 162.

Hart Snap Switches
(Continued).

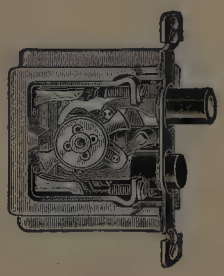
Heater Switches, 500 Volts.

pointer attached to the metal handle which points to a number on the cover indicating the degree of heat.

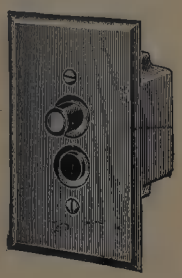
The knife blades of this switch are separated by a heavy barrier of porcelain between the upper and lower contacts which effectually prevents arcing.

No. 162. 35-amp., three-degree heater switch, $10.00

Lock attachment cannot be applied to No. 162 switch.



No. 701.



Switch Complete.

H. & H. Push Button Flush Switches.

The current carrying parts are insulated from mechanism by sheet mica.

The push is easy and cannot fail to operate.

Binding screws are extra long, making it easy to wire.

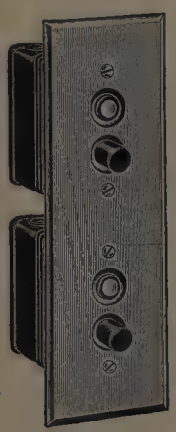
The porcelain has been designed so that there is ample room for wires of any necessary size, or for splicing.

The form of the porcelain allows extra room when used in gang boxes.

Switches without Plates.	Std. Pkg.	Each.
No. 701. 10 amps., S. P.	50	$1.15
,, 702. 10 ,, D. P.	50	1.65
,, 703. 10 ,, 3-way	50	1.65
,, 704. 10 ,, 4-way	5	3.25
,, 701. 10 ,, S. P. lock		1.65
,, 702. 10 ,, D. P. ,,		2.15
,, 703. 10 ,, 3-way ,,		2.15
,, 704. 10 ,, 4-way ,,		3.75
Key for lock push switch	each,	.15



Lock Push Switch.



Style 2 T. P.

Plates for Above.

Plates for push-button switches are the same price for both sizes, horizontal styles P. and S. P. and tandem Style T. P.

These plates are also used with the lock push switches.

Plates are furnished in the following finishes: Nickel, polished brass, dull brass, polished bronze. All other finishes are special. Nickel plates are always furnished unless otherwise specified.

On gang plates switches are located $1\frac{13}{16}$ inches between centres.

	Regular Size.	Std. Pkg.	Each.
No. 1-P. For 1 switch,	$4\frac{1}{2}$ x $2\frac{3}{4}$	50	$ .35
,, 2-P. ,, 2 switches,	$4\frac{1}{2}$ x $4\frac{9}{16}$		.70
,, 3-P. ,, 3 ,,	$4\frac{1}{2}$ x $6\frac{3}{8}$		1.05
,, 4-P. ,, 4 ,,	$4\frac{1}{2}$ x $8\frac{3}{16}$		1.40
,, 5-P. ,, 5 ,,	$4\frac{1}{2}$ x 10		1.75
,, 6-P. ,, 6 ,,	$4\frac{1}{2}$ x $11\frac{13}{16}$		2.10
,, 7-P. ,, 7 ,,	$4\frac{1}{2}$ x $13\frac{5}{8}$		2.45
,, 8-P. ,, 8 ,,	$4\frac{1}{2}$ x $15\frac{7}{16}$		2.80



Style 2 P.

Hart Rectangular Base Flush Switches.

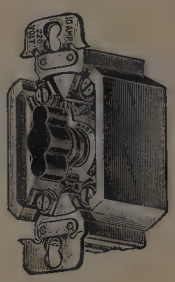
The switches will fit in the same space as a push-button flush switch.

The current carrying parts are insulated from mechanism.

The operation is easy, smooth, and sure.

The switch fits any standard box designed for push-

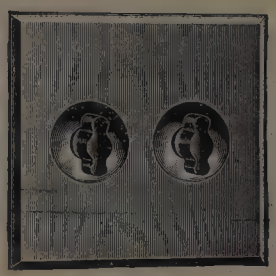
(*Continued on next page.*)



No. 600.



Switch Complete.



Style 2-R.



Style 2-T.R.



Showing Lock Attachment.



No. 1-W. Wall Case.

SWITCHES, Snap, Flush, and Push.

Hart Rectangular Base Flush Switches
(Continued).

button flush switches, or standard wall case, without alteration or removal of any parts.

Binding screws are extra long, making it easy to wire.

Switches without Plates.

			Std. Pkg.	Each.
No. 600.	5 amps., S. P.		50	$ .63
,, 601.	10 ,,	,,	50	.72
,, 602.	10 ,,	D. P.	50	1.08
,, 603.	10 ,,	3-way	50	1.08
,, 604.	10 ,,	4-way		1.08
,, 605.	10 ,,	3-sec. electrolier		1.08
,, 609.	10 ,,	2 ,, ,,		1.08

Plates only for Same.

Plates for rectangular base flush switches are the same price for both sizes horizontal Styles R. and S.R. and tandem Style T.R.

Plates are furnished in the following finishes: Nickel, polished brass, dull brass, polished bronze. All other finishes are special. Nickel plates are always furnished unless otherwise specified.

			Std. Pkg.	Each.
No. 1-R.	For 1 switch,	$4\frac{1}{2}$ x $2\frac{3}{4}$	100	.60
,, 2-R.	,, 2 switches,	$4\frac{1}{2}$ x $4\frac{9}{16}$		1.20
,, 3-R.	,, 3 ,,	$4\frac{1}{2}$ x $6\frac{3}{8}$		1.80
,, 4-R.	,, 4 ,,	$4\frac{1}{2}$ x $8\frac{3}{16}$		2.40
,, 5-R.	,, 5 ,,	$4\frac{1}{2}$ x 10		3.00
,, 6-R.	,, 6 ,,	$4\frac{1}{2}$ x $11\frac{13}{16}$		3.60
,, 7-R.	,, 7 ,,	$4\frac{1}{2}$ x $13\frac{5}{8}$		4.20
,, 8-R.	,, 8 ,,	$4\frac{1}{2}$ x $15\frac{7}{16}$		4.80
Lock attachment for plates, not including key				.12
Key for lock attachment				.06

Hart Cut-Out Switches.

It consists of a standard Hart double-pole switch, mounted on a suitable porcelain base in connection with two cartridge fuses, all encased under one cover. The terminal clips into which the supply wires are placed are outside the cover.

The switch is furnished either with or without the fuses.

		Std. Pkg.	Each.
No. 1022.	10-amp., D. P., indc., switch and cut-out	25	$1.70
No. 1122.	10-amp., D. P., indc., switch and cut-out	25	1.70

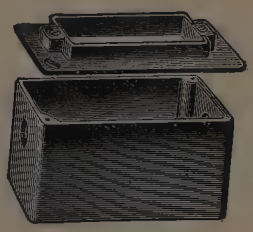
Fuses, $7\frac{1}{2}$c. each net; 15c. per switch.

Hart Wall Cases.

For Push-Button Switches and Rectangular Base Flush Switches.

			Std. Pkg.	Each.
No. 1-W.	For 1 switch,		50	$ .40
,, 2-W.	,, 2 switches		25	.70
,, 3-W.	,, 3 ,,		25	1.00
,, 4-W.	,, 4 ,,		10	1.30
,, 5-W.	,, 5 ,,		5	1.60
,, 6-W.	,, 6 ,,		5	1.90
,, 7-W.	,, 7 ,,		5	2.30
,, 8-W.	,, 8 ,,		5	2.40
,, 2-T.W.	,, 2 ,,	tandem		.70
,, 3-T.W.	,, 3 ,,	,,		1.00
,, 4-T.W.	,, 4 ,,	,,		1.30
,, 5-T.W.	,, 5 ,,	,,		1.60
,, 6-T.W.	,, 6 ,,	,,		1.90

SWITCHES, Snap, Flush, and Push (Continued).

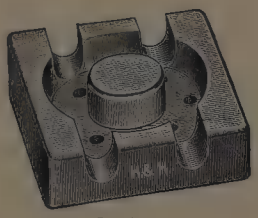


No. 1-N.B. Box for Single Switch.

Hart Iron Conduit Boxes.

For Push-Button Switches and Rectangular Base Flush Switches.

		Std. Pkg.	Each.
No. 1-N.B.	For 1 switch	50	$ .40
,, 2-N.B.	,, 2 switches	25	.70
,, 3-N.B.	,, 3 ,,	25	1.00
,, 4-N.B.	,, 4 ,,	10	1.30
,, 5-N.B.	,, 5 ,,	5	1.60
,, 6-N.B.	,, 6 ,,	5	1.90
,, 7-N.B.	,, 7 ,,	5	2.30
,, 8-N.B.	,, 8 ,,	5	2.40
,, 2-T.N.B.	,, 2 ,, tandem		.70
,, 3-T.N.B.	,, 3 ,, ,,		1.00
,, 4-T.N.B.	,, 4 ,, ,,		1.30



No. 1555.

Hart Switch Bases, Etc.

	Std. Pkg.	Each.
No. 1555. Square sub-bases for 5- and 10-amp. switches,	100	$ .06
,, 1557. ,, ,, ,, ,, 20 ,, 30 ,, ,,	25	.15
¼-in. conduit fasteners for loom	per 100,	.60
⅜ ,, ,, ,, ,, ,, ,,	,,	.60
Handles for 5- and 10-amp. standard and flush switches,		.06
,, ,, 20 ,, 30 ,, ,, ,, ,, ,,		.12



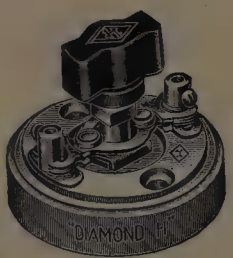
Fastener.

"Diamond H" Snap Switches, 250 Volts.

Heavy bases "open" or "closed" for cleat or concealed work. Covers lined throughout with fibre formed in one piece. Spring adjusting handles, interchangeable. Dials removable on indicating switches to facilitate wiring. Spring bronze knife contacts, sheet mica insulation. Lock switch keys only 8 cents each, included in prices.

5-Ampere, Single-Pole, 250 Volts.

		Std. Pkg.	Each.
No.	220. Concealed	54	$ .48
,,	2200. Slotted	54	.48
,,	D-220. Concealed, dial	54	.48
,,	D-2200. Slotted, ,,	54	.48
,,	L-220. Concealed, lock	6	.72
,,	L-2200. Slotted, ,,	6	.72
,,	DL-220. Concealed, lock dial	6	.72
,,	DL-2200. Slotted, ,, ,,	6	.72



S. P. Switch.

5-Ampere, Double-Pole, 250 Volts.

No.	122. Concealed	24	$ .84
,,	1220. Slotted	24	.84
,,	D-122. Concealed, dial	24	.84
,,	D-1220. Slotted, ,,	24	.84
,,	L-122. Concealed, lock	6	1.08
,,	L-1220. Slotted, ,,	6	1.08
,,	DL-122. Concealed, lock dial	6	1.08
,,	DL-1220. Slotted, ,, ,,	6	1.08

5-Ampere, Three-Way, 250 Volts.

No.	123. Concealed	24	$ .84
,,	1230. Slotted	24	.84
,,	L-123. Concealed, lock	6	1.08
,,	L-1230. Slotted, ,,	6	1.08

5-Ampere, Four-Way, 250 Volts.

No.	124. Concealed	6	$ .84
,,	1240. Slotted	6	.84
,,	L-124. Concealed, lock	6	1.08
,,	L-1240. Slotted, ,,	6	1.08



S. P. Dial Switch.

5-Ampere, Electrolier, 250 Volts, Two-Circuit, 1-2-1-Off.

No.	125. Concealed	6	$ .84
,,	1250. Slotted	6	.84
,,	D-125. Concealed, dial	6	.84
,,	D-1250. Slotted, ,,	6	.84
,,	L-125. Concealed, lock	6	1.08
,,	L-1250. Slotted, ,,	6	1.08
,,	DL-125. Concealed, ,, dial	6	1.08
,,	DL-1250. Slotted, ,, ,,	6	1.08

SWITCHES, Snap, Flush, and Push.

"Diamond H" Snap Switches, 250 Volts (Continued).



D. P. Switch.

5-Ampere, Electrolier, 250 Volts, Three-Circuit, 1-2-3-Off.

		Std. Pkg.	Each.
No.	126. Concealed	6	$ .84
,,	1260. Slotted	6	.84
,,	D-126. Concealed, dial	6	.84
,,	D-1260. Slotted, ,,	6	.84
,,	L-126. Concealed, lock	6	1.08
,,	L-1260. Slotted, ,,	6	1.08
,,	DL-126. Concealed, ,, dial	6	1.08
,,	DL-1260. Slotted, ,, ,,	6	1.08

10-Ampere, Single-Pole, 250 Volts.

No.	221. Concealed	54	$ .60
,,	2210. Slotted	54	.60
,,	D-221. Concealed, dial	54	.60
,,	D-2210. Slotted, ,,	54	.60
,,	L-221. Concealed, lock	6	.84
,,	L-2210. Slotted, ,,	6	.84
,,	DL-221. Concealed, ,, dial	6	.84
,,	DL-2210. Slotted, ,, ,,	6	.84

10-Ampere, Double-Pole, 250 Volts.

No.	222. Concealed	54	$1.08
,,	2220. Slotted,	54	1.08
,,	D-222. Concealed, dial	54	1.08
,,	D-2220. Slotted, ,,	54	1.08
,,	L-222. Concealed, lock	6	1.32
,,	L-2220. Slotted, ,,	6	1.32
,,	DL-222. Concealed, ,, dial	6	1.32
,,	DL-2220. Slotted, ,, ,,	6	1.32

10-Ampere, Three-Way, 250 Volts.

No.	223. Concealed	24	$1.08
,,	2230. Slotted	24	1.08
,,	L-223. Concealed, lock	6	1.32
,,	L-2230. Slotted, ,,	6	1.32

10-Ampere, Four-Way, 250 Volts.

No.	224. Concealed	12	$1.08
,,	2240. Slotted	12	1.08
,,	L-224. Concealed, lock	6	1.32
,,	L-2240. Slotted, ,,	6	1.32

10-Ampere, Electrolier, 250 Volts, Two-Circuit, 1-2-1-Off.

No.	225. Concealed	12	$1.08
,,	2250. Slotted	12	1.08
,,	D-225. Concealed, dial	12	1.08
,,	D-2250. Slotted, ,,	12	1.08
,,	L-225. Concealed, lock	6	1.32
,,	L-2250. Slotted, ,,	6	1.32
,,	DL-225. Concealed, ,, dial	6	1.32
,,	DL-2250. Slotted, ,, ,,	6	1.32

10-Ampere, Electrolier, 250 Volts, Three-Circuit, 1-2-1-Off.

No.	226. Concealed	12	$1.08
,,	2260. Slotted	12	1.08
,,	D-226. Concealed, dial	12	1.08
,,	D-2260. Slotted, ,,	12	1.08
,,	L-226. Concealed, lock	6	1.32
,,	L-2260. Slotted, ,,	6	1.32
,,	DL-226. Concealed, ,, dial	6	1.32
,,	DL-2260. Slotted, ,, ,,	6	1.32



No. 226.

20-Ampere, Single-Pole, 250 Volts.

No.	321. Concealed	6	$1.20
,,	3210. Slotted	6	1.20
,,	D-321. Concealed, dial	6	1.20
,,	D-3210. Slotted, ,,	6	1.20
,,	L-321. Concealed, lock	3	1.44
,,	L-3210. Slotted, ,,	3	1.44
,,	DL-321. Concealed, ,, dial	3	1.44
,,	DL-3210. Slotted, ,, ,,	3	1.44

SWITCHES, Snap, Flush, and Push.

"Diamond H" Snap Switches, 250 Volts (Continued).



No. 501.

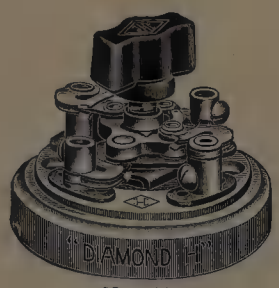
20-Ampere, Double-Pole, 250 Volts.		Std. Pkg.	Each.
No. 322.	Concealed	6	$1.44
,, 3220.	Slotted	6	1.44
,, D-322.	Concealed, dial	6	1.44
,, D-3220.	Slotted, ,,	6	1.44
,, L-322.	Concealed, lock	3	1.68
,, L-3220.	Slotted, ,,	3	1.68
,, DL-322.	Concealed, ,, dial	3	1.68
,, DL-3220.	Slotted, ,, ,,	3	1.68

35-Ampere, Single-Pole, 250 Volts.		Std. Pkg.	Each.
No. 421.	Concealed	3	$1.44
,, 4210.	Slotted	3	1.44
,, D-421.	Concealed, dial	3	1.44
,, D-4210.	Slotted, ,,	3	1.44
,, L-421.	Concealed, lock	3	1.68
,, L-4210.	Slotted, ,,	3	1.68
,, DL-421.	Concealed, ,, dial	3	1.68
,, DL-4210.	Slotted, ,, ,,	3	1.68

35-Ampere, Double-Pole, 250 Volts.		Std. Pkg.	Each.
No. 422.	Concealed	3	$1.80
,, 4220.	Slotted	3	1.80
,, D-422.	Concealed, dial	3	1.80
,, D-4220.	Slotted, ,,	3	1.80
,, L-422.	Concealed, lock	3	2.04
,, L-4220.	Slotted, ,,	3	2.04
,, DL-422.	Concealed, ,, dial	3	2.04
,, DL-4220.	Slotted, ,, ,,	3	2.04

"Diamond H" Snap Switches, 500 Volts.

For electric railways and circuits of 500 to 600 volts.



No. 508.

Concealed Base, without Dials.

	Capacity.	Style.	Std. Pkg.	Each.
No. 501.	5 amps.	S. P.	54	$ .60
,, 503.	5 ,,	3-way	54	1.08
,, 506.	5 ,,	2-circuit	24	1.08
,, 507.	5 ,,	3 ,,	24	1.08
,, 508.	2 ,,	multiple series	12	1.08

Slotted Base, without Dials.

	Capacity.	Style.	Std. Pkg.	Each.
No. 5010.	5 amps.	S. P.	54	$ .60
,, 5030.	5 ,,	3-way	54	1.08
,, 5060.	5 ,,	2-circuit	24	1.08
,, 5070.	5 ,,	3 ,,	24	1.08
,, 5080.	2 ,,	multiple series	12	1.08

Concealed Base, with Dials.

	Capacity.	Style.	Std. Pkg.	Each.
No. D-501.	5 amps.	S. P.	54	$ .60
,, D-506.	5 ,,	2-circuit	24	1.08
,, D-507.	5 ,,	3 ,,	24	1.08
,, D-508.	2 ,,	multiple series	12	1.08

Slotted Base, with Dials.

	Capacity.	Style.	Std. Pkg.	Each.
No. D-5010.	5 amps.	S. P.	54	$ .60
,, D-5060.	5 ,,	2-circuit	24	1.08
,, D-5070.	5 ,,	3 ,,	24	1.08
,, D-5080.	2 ,,	multiple series	12	1.08

Lock. Concealed Base. No Dials.

	Capacity.	Style.	Std. Pkg.	Each.
No. L-501.	5 amps.	S. P.	54	$ .84
,, L-503.	5 ,,	3-way	54	1.32
,, L-506.	5 ,,	2-circuit	24	1.32
,, L-507.	5 ,,	3 ,,	24	1.32
,, L-508.	2 ,,	multiple series	12	1.32

SWITCHES, Snap, Flush, and Push.



Rotary Flush Switch with Face Plate.

"Diamond H" Snap Switches, 500 Volts (Continued).

Lock. Slotted Base. No Dials.

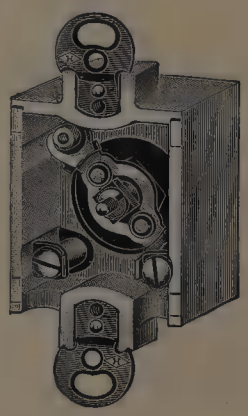
	Capacity.	Style.	Std. Pkg.	Each.
No. L-5010.	5 amps.	S. P.	54	$ .84
,, L-5030.	5 ,,	3-way	54	1.32
,, L-5060.	5 ,,	2-circuit	24	1.32
,, L-5070.	5 ,,	3 ,,	24	1.32
,, L-5080.	2 ,,	multiple series	12	1.32

Lock. Concealed Base. With Dials.

	Capacity.	Style.	Std. Pkg.	Each.
No. DL-501	5 amps.	S. P.	54	$ .84
,, DL-506.	5 ,,	2-circuit	24	1.32
,, DL-507.	5 ,,	3 ,,	24	1.32
,, DL-508.	2 ,,	multiple series	12	1.32

Lock. Slotted Base. With Dials.

	Capacity.	Style.	Std. Pkg.	Each.
No. DL-5010.	5 amps.	S. P.	54	$ .84
,, DL-5060.	5 ,,	2-circuit	24	1.32
,, DL-5070.	5 ,,	3 ,,	24	1.32
,, DL-5080.	2 ,,	multiple series	12	1.32



Rotary Flush Switch without Plate.

"Diamond H" Rotary Flush Switches.

Complete with Plate.

	Capacity.	Style.	Std. Pkg.	Each.
No. 105.	5 amps.	S. P.	25	$1.44
,, 110.	10 ,,	,,	50	1.56
,, 120.	10 ,,	D. P.	50	2.04
,, 130.	10 ,,	3-way	10	2.04
,, 140.	10 ,,	4 ,,	10	2.04
,, 150.	10 ,,	2-pt. electrolier	10	2.04
,, 160.	10 ,,	3 ,, ,,	10	2.04

Without Plate.

	Capacity.	Style.	Std. Pkg.	Each.
No. O-105.	5 amps.	S. P.	25	$ .72
,, O-110.	10 ,,	,,	50	.84
,, O-120.	10 ,,	D. P.	50	1.32
,, O-130.	10 ,,	3-way	10	1.32
,, O-140.	10 ,,	4 ,,	10	1.32
,, O-150.	10 ,,	2-pt. electrolier	10	1.32
,, O-160.	10 ,,	3 ,, ,,	10	1.32

"Diamond H" Rotary Flush Plates.

Plate for	Std. Pkg.	Price per Plate.
1 switch	10	$ .72
2 switches	5	1.44
3 ,,	5	2.16
4 ,,	5	2.88
5 ,,	4	3.60
6 ,,	1	4.32
7 ,,	1	5.04
8 ,,	1	5.76
9 ,,	1	6.48
10 ,,	1	7.20

Tandem plates and larger plates in proportion.

Finishes.

These plates are carried in stock in nickel, bronze, old brass, polished brass and oxidized copper.

No extra charge for these finishes.

Keys for any of above lock switches, 8 cents each.



Lock Switch.

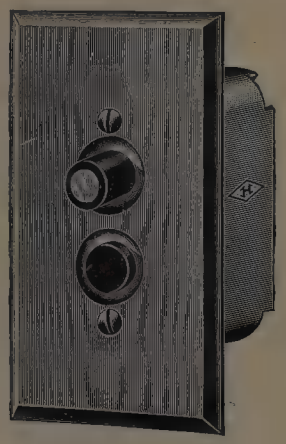


Key.

"Diamond H" Rotary Flush Lock Switches.

	Capacity.	Style.	Std. Pkg.	Switch Complete with Plate and Key	Switch Only.	Plate and Key Only.
No. L-105.	5 amps.	S. P.	10	$1.68	$ .72	$ .96
,, L-110.	10 ,,	S. P.	10	1.80	.84	.96
,, L-120.	10 ,,	D. P.	10	2.28	1.32	.96
,, L-130.	10 ,,	3-way	5	2.28	1.32	.96
,, L-140.	10 ,,	4 ,,	5	2.28	1.32	.96
,, L-150.	10 ,,	2-pt. electro.	5	2.28	1.32	.96
,, L-160.	10 ,,	3 ,, ,,	5	2.28	1.32	.96

SWITCHES, Snap, Flush, and Push (Continued).



Push Button Switch, with Face Plate.

"Diamond H" Rotary Gang Lock Plates Only.

Plate for	Price per Plate.
2 switches	$1.92
3 ,,	2.88
4 ,,	3.84
5 ,,	4.80
6 ,,	5.76
7 ,,	6.72
8 ,,	7.68
9 ,,	8.64
10 ,,	9.60

Larger plates in proportion.

When keys are not required deduct 8 cents each from list price on "Standard" switches or from list price on Rotary Lock Plates.

"Diamond H" Push Button Switches.

Switches Complete with Plates.

	Capacity.	Style.	Std. Pkg.	List Price Each.
No.	10. 10 amperes,	single-pole	50	$1.90
,,	20. 10 ,,	double-pole	50	2.25
,,	30. 10 ,,	three-way	25	2.25
,,	40. 10 ,,	four ,,	5	4.00

Switches without Plates.

	Capacity.	Style.	Std. Pkg.	List Price Each.
No.	010. 10 amperes,	single-pole	50	$1.50
,,	020. 10 ,,	double-pole	50	1.85
,,	030. 10 ,,	three-way	25	1.85
,,	040. 10 ,,	four ,,	5	3.60

Plates Only.

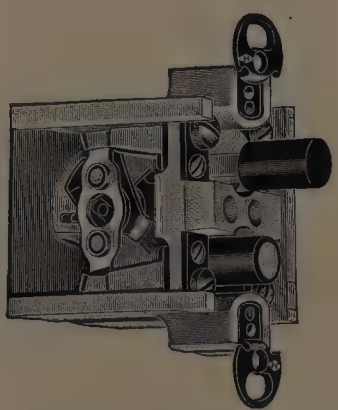
	Dimensions.	List Price.
For 1 switch,	$2\frac{3}{4}$ in. x $4\frac{1}{2}$ in.	$ .40
,, 2 switches,	$4\frac{9}{16}$,, x $4\frac{1}{2}$,,	.80
,, 3 ,,	$6\frac{3}{8}$,, x $4\frac{1}{2}$,,	1.20
,, 4 ,,	$8\frac{3}{16}$,, x $4\frac{1}{2}$,,	1.60
,, 5 ,,	10 ,, x $4\frac{1}{2}$,,	2.00
,, 6 ,,	$11\frac{13}{16}$,, x $4\frac{1}{2}$,,	2.40
,, 7 ,,	$13\frac{5}{8}$,, x $4\frac{1}{2}$,,	2.80
,, 8 ,,	$15\frac{7}{16}$,, x $4\frac{1}{2}$,,	3.20
,, 9 ,,	$17\frac{1}{4}$,, x $4\frac{1}{2}$,,	3.60
,, 10 ,,	$19\frac{1}{16}$,, x $4\frac{1}{2}$,,	4.00

Larger plates in proportion.

Tandem Plates.

	Dimensions.	List Price.
For 2 switches,	$2\frac{3}{4}$ in. x $8\frac{7}{16}$ in.	$. 80
,, 3 ,,	$2\frac{3}{4}$,, x $12\frac{7}{32}$,,	1.20
,, 4 ,,	$2\frac{3}{4}$,, x 16 ,,	1.60
,, 5 ,,	$2\frac{3}{4}$,, x $19\frac{25}{32}$,,	2.00

Larger plates in proportion.



Push Switch, without Plate.

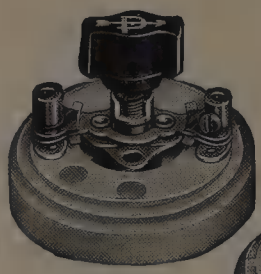
Lock Switches.

No.	Capacity.	Style.	Std. Pkg.	Switch Complete with Plate and Key.	Switch Base Only.	Plate Only.	Key Only.
L-10.	10 amp.,	S. P.	10	$2.50	$1.60	$ .80	$ .10
L-20.	10 ,,	D. P.	10	2.85	1.95	.80	.10
L-30.	10 ,,	3-way	5	2.85	1.95	.80	.10
L-40.	10 ,,	4 ,,	5	4.60	3.70	.80	.10

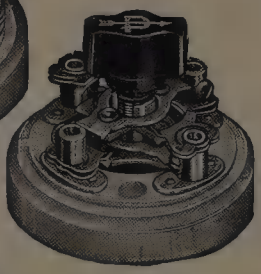
Lock gang plates are in same proportion as single plates.

Standard finishes are nickel, bronze, old brass, and polished brass.

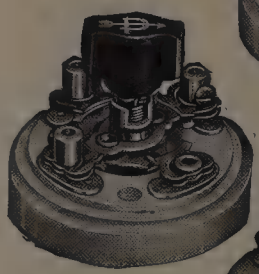
Special sized plates and special finishes furnished to order at a moderate advance in above prices.



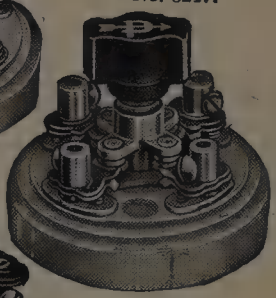
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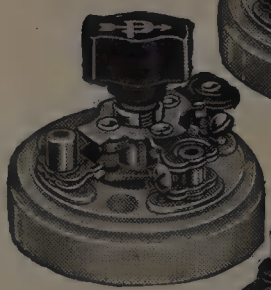
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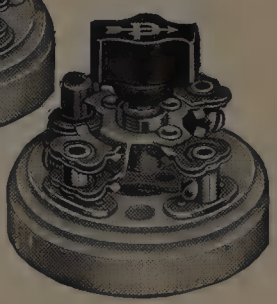
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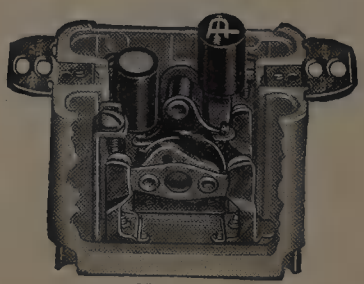
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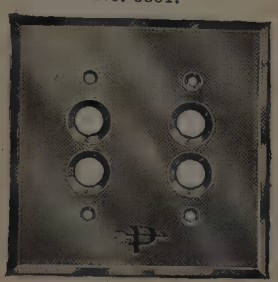
No. 6235.



No. 6239.



No. 6301.



No. 6313.

SWITCHES, Snap, Flush, and Push (Continued).

"Arrow E" Snap Switches.

	Std. Pkg	Price Each.
5-Ampere, Single-Pole, 250 Volts.		
No. 6200. Open base	252	$ .32
,, 6201. ,, ,, indicating	252	.32
,, 6202. Closed ,,	252	.32
,, 6203. ,, ,, indicating	252	.32
10-Ampere, Single-Pole, 250 Volts.		
No. 6204. Open base	102	$ .40
,, 6205. ,, ,, indicating	102	.40
,, 6206. Closed ,,	102	.40
,, 6207. ,, ,, indicating	102	.40
10-Ampere, Double-Pole, 250 Volts.		
No. 6215. Open base	102	$ .66
,, 6216. ,, ,, indicating	102	.66
,, 6217. Closed ,,	102	.66
,, 6218. ,, ,, indicating	102	.66
5-Ampere, Three-Point, 250 Volts.		
No. 6225. Open base	54	$ .50
,, 6226. Closed ,,	54	.50
10-Ampere, Three-Point, 250 Volts.		
No. 6229. Open base	30	$ .60
,, 6230. Closed ,,	30	.60
10-Ampere, Four-Point, 250 Volts.		
No. 6231. Open base		$ .66
,, 6232. Closed ,,		.66
10-Ampere, Two-Circuit, 250 Volts.		
No. 6233. Open base		$ .66
,, 6234. ,, ,, indicating		.66
,, 6235. Closed ,,		.66
,, 6236. ,, ,, indicating		.66
10-Ampere, Three-Circuit, 250 Volts.		
No. 6237. Open base		$ .66
,, 6238. ,, ,, indicating		.66
,, 6239. Closed ,,		.66
,, 6240. ,, ,, indicating		.66
Special Finishes for Surface Switches.		
For surface switches in special finishes, add to list price		$ .10

NOTE.—All finishes on surface switches are special except polished nickel.

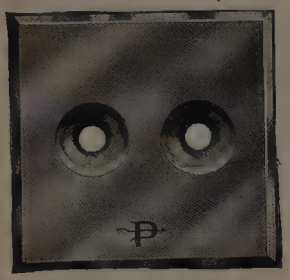
"Arrow E" Push Switches.

	Std. Pkg.	Price Each.
Push Button Flush Switches.		
No. 6300. 10 amperes, single-pole	50	$1.15
,, 6301. 10 ,, double-pole	50	1.65
,, 6302. 10 ,, three-point	50	1.65
,, 6303. 10 ,, four ,,	50	3.25
Flush Plates for Push Button Flush Switches. *In One Horizontal Row.*		
No. 6312. For 1 switch, $4\frac{1}{2}$ x $2\frac{3}{4}$	50	$ .35
,, 6313. ,, 2 switches, $4\frac{1}{2}$ x $4\frac{9}{16}$		.70
,, 6314. ,, 3 ,, $4\frac{1}{2}$ x $6\frac{3}{8}$		1.05
,, 6315. ,, 4 ,, $4\frac{1}{2}$ x $8\frac{3}{16}$		1.40
,, 6316. ,, 5 ,, $4\frac{1}{2}$ x 10		1.75
,, 6317. ,, 6 ,, $4\frac{1}{2}$ x $11\frac{13}{16}$		2.10
,, 6318. ,, 7 ,, $4\frac{1}{2}$ x $13\frac{5}{8}$		2.45
,, 6319. ,, 8 ,, $4\frac{1}{2}$ x $15\frac{7}{16}$		2.80
Special Finishes on Push Button Plates.		
For special finishes add to list price per switch		$ .10

NOTE.—Polished brass, old brass, brush brass, polished bronze, oxidized copper and polished nickel are all standard finishes for flush plates. All other finishes are special.



No. 6252.



No. 6266.



No. 6222. No. 6221.



No. 6337.



No. 2000.



No. 2036.

SWITCHES, Snap, Flush, and Push (Continued).

"Arrow E" Flush Rotary Switches.

Rectangular Rotary Flush Switches, 250 Volts.

				Std. Pkg.	Price Each.
No. 6250.	5	amperes,	single-pole	100	$ .62
,, 6251.	10	,,	,, ,,	50	.71
,, 6252.	10	,,	double ,,	50	1.05
,, 6253.	5	,,	three-point	50	.82
,, 6254.	10	,,	,, ,,	30	1.05
,, 6255.	10	,,	four ,,		1.05
,, 6256.	10	,,	two-circuit		1.05
,, 6257.	10	,,	three ,,		1.05

Flush Plates for Rectangular Rotary Flush Switches, 250 Volts.

In One Horizontal Row.

			Inches.		
No. 6265.	For 1	switch,	$4\frac{1}{2}$ x $2\frac{3}{4}$	100	$ .53
,, 6266.	,, 2	switches,	$4\frac{1}{2}$ x $4\frac{9}{16}$		1.20
,, 6267.	,, 3	,,	$4\frac{1}{2}$ x $6\frac{3}{8}$		1.80
,, 6268.	,, 4	,,	$4\frac{1}{2}$ x $8\frac{3}{16}$		2.40
,, 6269.	,, 5	,,	$4\frac{1}{2}$ x 10		3.00
,, 6270.	,, 6	,,	$4\frac{1}{2}$ x $11\frac{13}{16}$		3.60
,, 6271.	,, 7	,,	$4\frac{1}{2}$ x $13\frac{5}{8}$		4.20
,, 6272.	,, 8	,,	$4\frac{1}{2}$ x $15\frac{7}{16}$		4.80

Special Finishes on Rectangular Rotary Flush Plates.

For special finishes add to list price, per switch ..... $ .10

NOTE.—Polished brass, old brass, brush brass, polished bronze, oxidized copper, and polished nickel are all standard finishes for flush plates. All other finishes are special.

"Arrow E" Switch Parts.

Miscellaneous Switch Handles. Price Each.

Switch handles, all styles	$ .06
No. 6220. Universal lock attachment, with key	.18
No. 6221. Universal lock attachment, without key	.12
No. 6222. Key for universal lock attachment	.06

The above lock attachments will fit all surface and rotary flush switches.

Porcelain Switch Bases.

For 5-Ampere Switches.

		Std. Pkg.	Price Each
No. 6330.	For cleat work	100	$ .05
,, 6331.	,, concealed work	100	.05
,, 6332.	,, moulding work	100	.05

For 10-Ampere Switches.

No. 6335.	For cleat work	100	$ .06
,, 6336.	,, concealed work	100	.06
,, 6337.	,, moulding work	100	.06

For 5- and 10-Ampere Single-Pole Switches.

No. 6340.	To be used at the end of moulding	100	$ .06

Perkins Snap Switches, 250 Volts.

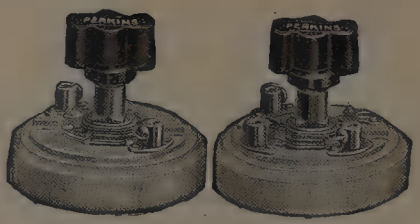
Snap switches in special finishes, add to list price ..... $ .10

All finishes except polished nickel are special.

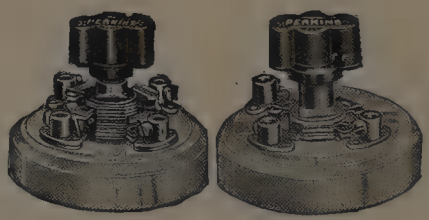
		Std. Pkg.	Each.
5-Ampere, Single-Pole.			
No. 2000.	Slotted	250	$ .32
,, 2220.	Concealed	250	.32
,, 2047.	Slotted, indicating	250	.32
,, 2035.	Concealed, ,,	250	.32
10-Ampere, Single-Pole.			
No. 2001.	Slotted	100	$ .40
,, 2221.	Concealed	100	.40
,, 2048.	Slotted, indicating	100	.50
,, 2036.	Concealed, ,,	100	.40

SWITCHES, Snap, Flush, and Push.

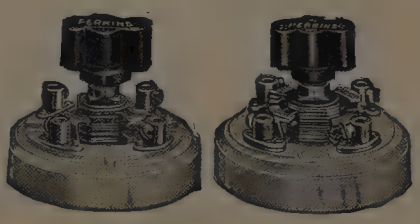
Perkins Snap Switches, 250 Volts (Continued).



No. 2173. No. 2177.



No. 2183. No. 2216.



No. 2185. No. 2009.

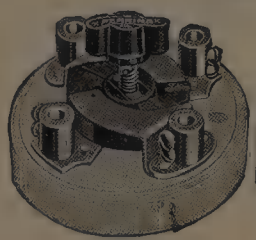
	Std. Pkg.	Each
5-Ampere, Three-Point.		
No. 2175 Concealed	50	$ .50
,, 2027. Slotted	50	.50
10-Ampere, Three-Point.		
No. 2176. Concealed	30	$ .60
,, 2030. Slotted	30	.60
5-Ampere, Single-Pole.		
No 2170. Concealed	100	$ .40
,, 2002. Slotted	100	.40
,, 2254. Concealed, indicating	100	.40
,, 2255. Slotted, ,,	100	.40
,, 2317. Concealed, lock		.52
,, 2318. Slotted, ,,		.52
,, 2319. Concealed, ,, indicating		.52
,, 2320. Slotted, ,, ,,		.52
10-Ampere, Single-Pole.		
No. 2173 Concealed	50	$ .48
,, 2005. Slotted	50	.48
,, 2234. Concealed, indicating	50	.48
,, 2233. Slotted, ,,	50	.48
,, 2174. Concealed, lock		.60
,, 2006. Slotted, ,,		.60
,, 2236. Concealed, lock, indicating		.60
,, 2235. Slotted, ,, ,,		.60
5-Ampere, Three-Point.		
No. 2321. Concealed	50	$ .56
,, 2322. Slotted	50	.56
,, 2323. Concealed, lock		.68
,, 2324. Slotted, ,,		.68
10-Ampere, Three-Point.		
No. 2177. Concealed	30	$ .66
,, 2031. Slotted	30	.66
,, 2178. Concealed, lock		.78
,, 2032. Slotted, ,,		.78
10-Ampere, Four-Point.		
No. 2183. Concealed		$ .66
,, 2033. Slotted		.66
,, 2184. Concealed, lock		.78
,, 2034. Slotted, ,,		.78
10-Ampere, Electrolier, 2-Circuit.		
No. 2216. Concealed		$ .66
,, 2215. Slotted		.66
,, 2188. Concealed, indicating		.66
,, 2074. Slotted, ,,		.66
,, 2186. Concealed, lock		.78
,, 2071. Slotted, ,,		.78
,, 2190. Concealed, lock, indicating		.78
,, 2075. Slotted, ,, ,,		.78
10-Ampere, Electrolier, 3-Circuit.		
No. 2185. Concealed		$ .66
,, 2070. Slotted		.66
,, 2187. Concealed, indicating		.66
,, 2072. Slotted, ,,		.66
,, 2275. Concealed, lock		.78
,, 2276. Slotted, ,,		.78
,, 2189. Concealed, lock, indicating		.78
,, 2073. Slotted, ,, ,,		.78
5-Ampere, Double-Pole.		
No. 2391. Concealed	100	$ .56
,, 2392. Slotted	100	.56
,, 2393. Concealed, indicating	100	.56
,, 2394. Slotted, ,,	100	.56
10-Ampere, Double-Pole.		
No. 2009. Concealed	100	$ .66
,, 2017. Slotted	100	.66
,, 2038. Concealed, indicating	100	.66
,, 2050. Slotted, ,,	100	.66
,, 2010. Concealed, lock		.78
,, 2018. Slotted, ,,		.78
,, 2037. Concealed, lock, indicating		.78
,, 2051. Slotted, ,, ,,		.78



No. 2011.



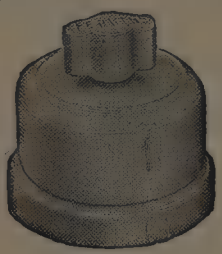
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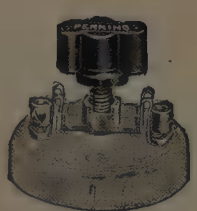
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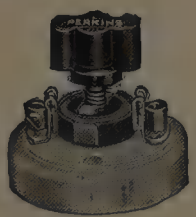
No. 2025.



No. 2141.



No 2171.



No. 2238.



No. 2049.

SWITCHES, Snap, Flush, and Push.

Perkins Snap Switches, 250 Volts (Continued).

	Std. Pkg.	Each.
20-Ampere, Double-Pole.		
No. 2011. Concealed	10	$1.20
,, 2019. Slotted	10	1.20
,, 2040. Concealed, indicating	10	1.20
,, 2052. Slotted, ,,	10	1.20
,, 2012. Concealed, lock		1.32
,, 2020. Slotted, ,,		1.32
,, 2039. Concealed, lock, indicating		1.32
,, 2053. Slotted, ,, ,,		1.32
30-Ampere, Double-Pole.		
No. 2013. Concealed	10	$1.50
,, 2021. Slotted	10	1.50
,, 2042. Concealed, indicating	10	1 50
,, 2054. Slotted, ,,	10	1 50
,, 2014. Concealed, lock		1.62
,, 2022. Slotted, ,,		1.62
,, 2041. Concealed lock, indicating		1.62
,, 2055. Slotted ,, ,,		1.62
50-Ampere, Double-Pole.		
No. 2015. Concealed		$3.00
,, 2023. Slotted		3.00
,, 2044. Concealed, indicating		3.00
,, 2056. Slotted, ,,		3.00
,, 2016. Concealed, lock		3.12
,, 2024. Slotted, ,,		3.12
,, 2043. Concealed, lock, indicating		3.12
,, 2057. Slotted, ,, ,,		3.12
15-Ampere, Triple-Pole.		
No. 2025. Concealed		$1.60
,, 2046. ,, indicating		1.70
,, 2026. ,, lock		1.72
,, 2045. ,, ,, indicating		1.82
All-Porcelain Switches.		
No. 2141. 10-amps., single-pole		$ .64
,, 2140. 10 ,, three-point		.82
,, 2142. 10 ,, four ,,		.82
,, 2264. 10 ,, electrolier, 2-circuit		.82
,, 2263. 10 ,, ,, 3 ,,		.82
,, 2139. 10 ,, double-pole		.82
,, 2076. 10 ,, ,, fusible, indicating		1.60

Perkins Snap Switches, 600 Volts.

3-Ampere, Single-Pole.		
No. 2171. Concealed	50	$ .40
,, 2003. Slotted	50	.40
,, 2226. Concealed, indicating	30	.40
,, 2225. Slotted, ,,	30	.40
3-Ampere, Single-Pole.		
No. 2238. Concealed	30	$. 48
,, 2237. Slotted	30	.48
,, 2058. Concealed, indicating	30	.48
,, 2064. Slotted, ,,	30	.48
,, 2240. Concealed, lock		.60
,, 2239. Slotted, ,,		.60
,, 2059. Concealed, lock, indicating		.60
,, 2065. Slotted, ,, ,,		.60
5-Ampere, Single-Pole, Quadruple Break.		
No. 2211. Concealed	20	$. 66
,, 2212. Slotted	20	.66
,, 2049. Concealed, indicating	10	.66
,, 2103. Slotted, ,,	10	.66
,, 2213. Concealed, lock		.78
,, 2214. Slotted, ,,		.78
,, 2102. Concealed, lock, indicating		.78
,, 2104. Slotted, ,, ,,		.78

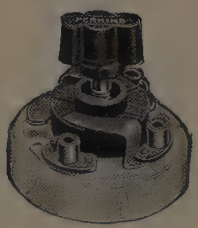
SWITCHES, Snap, Flush, and Push.



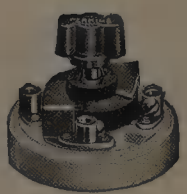
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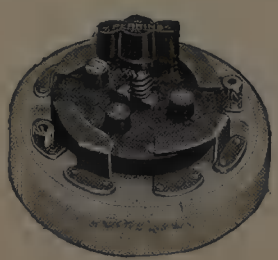


No. 2232.



No. 2179.


No. 2181.



No. 2079.

Perkins Snap Switches, 600 Volts
(Continued).

	Std. Pkg.	Each.
10-Ampere, Single-Pole, Quadruple Break.		
No. 2227. Concealed	50	$1.50
,, 2228. Slotted	50	1.50
,, 2060. Concealed, indicating	50	1.50
,, 2066. Slotted, ,,	50	1.50
,, 2229. Concealed, lock		1.62
,, 2230. Slotted, ,,		1.62
,, 2061. Concealed, lock, indicating		1.62
,, 2067. Slotted, ,, ,,		1.62
20-Ampere, Single-Pole, Quadruple Break.		
No. 2301. Concealed		$3.00
,, 2302. Slotted		3.00
,, 2303. Concealed, indicating		3.00
,, 2304. Slotted, ,,		3.00
,, 2305. Concealed, lock		3.12
,, 2306. Slotted, ,,		3.12
,, 2307. Concealed, lock, indicating		3.12
,, 2308. Slotted, ,, ,,		3.12
3-Ampere, Three-Point.		
No. 2232. Concealed	30	$. 60
,, 2231. Slotted	30	.60
3-Ampere, Three-Point.		
No. 2242. Concealed		$ .66
,, 2241. Slotted		.66
,, 2244. Concealed, lock		.78
,, 2243. Slotted, ,,		.78
5-Ampere, Three-Point.		
No. 2179. Concealed		$0.66
,, 2100. Slotted		.66
,, 2180. Concealed, lock		.78
,, 2101. Slotted, ,,		.78
3-Ampere, Two-Circuit.		
No. 2181. Concealed		$0.66
,, 2028. Slotted		.66
,, 2062. Concealed, indicating		.66
,, 2068. Slotted, ,,		.66
,, 2182. Concealed, lock		.78
,, 2029. Slotted, ,,		.78
,, 2063. Concealed, lock, indicating		.78
,, 2069. Slotted, ,, ,,		.78

15-Ampere, Heat Regulating.

These switches are used for the regulation of heat by different combinations of the heaters.

In switches Nos. 2079 and 2080 the first turn connects in circuit heater No. 1.

The second turn throws out of circuit heater No. 1 and connects in circuit heater No. 2, which, being of greater capacity than No. 1, generates a larger amount of heat.

The third turn connects heaters No. 1 and No. 2 in parallel, giving the maximum amount of heat.

The action of switches Nos. 2081 and 2082 is the same on the first and second turns, but on the third turn they throw only on heater No. 1.

A valuable feature of these switches consists in the four simultaneous breaks of the circuit each time the switch is turned from one position to the next, thus reducing arcing to a minimum.

No. 2079. Concealed, indicating, 3-heat		$3.00
,, 2080. ,, ,, 3 ,, lock		3.12
,, 2081. ,, ,, 2 ,,		3.00
,, 2082. ,, ,, 2 ,, lock		3.12

SWITCHES, Snap, Flush, and Push.



No. 2265.

Perkins Snap Switches, 600 Volts (Continued).

Porcelain Cap Switches.		Each.
No. 2265.	3-amperes, single-pole	$ .64
,, 2266. 3	,, ,,	.72
,, 2267. 5	,, ,,	.82
,, 2268. 3	,, 3-point	.76
,, 2269. 3	,, ,,	.82
,, 2272. 5	,, ,,	.82
,, 2273. 3	,, 2-circuit	.82

Porcelain Cap, Fusible Switches.		Std. Pkg.	Each.
No. 2077.	3-amps., S. P., indicating	10	$1.60
,, 2277. 3	,, ,, ,, brown porcelain,	10	1.60
,, 2078. 3	,, 2-circuit	10	1.60
,, 2278. 3	,, ,, brown porcelain	10	1.60
,, 2315. 3	,, S. P., indicating, brown porcelain,	10	1.20

Perkins Switch Blocks, Porcelain.



No. 2357.

For Wall Sockets, Receptacles, and 5-Ampere Switches.		Std. Pkg.	Each.
No. 2381.	For cleat work	100	$ .05
,, 2382.	,, concealed work	100	.05
,, 2383.	,, moulding work	100	.05

For 10-Ampere Switches.			
No. 2357.	For cleat work	100	$ .06
,, 2252.	,, concealed work	100	.06
,, 2222.	,, moulding work	100	.06

For 20- and 30-Ampere Switches.			
No. 2379.	For cleat work	25	$ .15
,, 2380.	,, concealed work	25	.15
,, 2262.	,, moulding work	25	.15

For Wall Sockets, Receptacles, and 5- and 10-Amp. S. P. Switches.			
No. 2358.	For moulding work at the end of a run of moulding	100	$ 06



No. 2126.

Miscellaneous.		
Switch handles, all styles		$ .06
No. 2384.	Universal lock attachment, without key	.12
,, 2126.	Key for lock attachment	.06

Perkins Rectangular Cup Flush Switches, 250 Volts.

Flush switches in special finishes, add to list price, per switch ..... $ .10

NOTE. — Polished brass, old brass, brush brass, polished bronze, oxidized copper, and polished nickel are standard finishes for Flush Receptacles and Flush Switches. All other finishes are special.

Gang Switches Only.		Std. Pkg.	Each.
No. 2205.	5-amperes, single-pole	100	$ .62
,, 2206. 10	,, ,, ,,	50	.71
,, 2325. 5	,, 3-point	50	.82
,, 2208. 10	,, 3 ,,	30	1.05
,, 2209. 10	,, 4 ,,		1.05
,, 2224. 10	,, electrolier, 2-circuit		1.05
,, 2210. 10	,, ,, 3 ,,		1.05
,, 2207. 10	,, double-pole	50	1.05

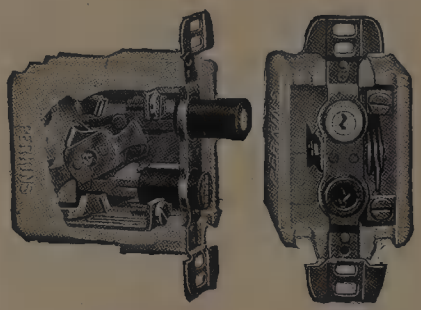
Gang Switches Only, Indicating.			
No. 2340.	5-amperes, single-pole	25	$ .72
,, 2341. 10	,, ,, ,,	10	.81
,, 2342. 10	,, electrolier, 2-circuit		1.15
,, 2343. 10	,, ,, 3 ,,		1.15
,, 2344. 10	,, double-pole	10	1.15
,, 2345.	Single plate for above, $4\frac{1}{2} \times 2\frac{3}{4}$ inches	25	.53



No. 2208.



No. 3182.



No. 2202. No. 2295.



No. 3166.



No. 28842.



Hartford Time Switch.

SWITCHES, Snap, Flush, and Push.

Perkins Rectangular Cup Flush Switches, 250 Volts (Continued).

Plates Only (one horizontal row).			Std. Pkg.	Each.
No. 3181.	For 1 switch,	$4\frac{1}{2}$ x $2\frac{3}{4}$ in.....	100	$ .53
,, 3182.	,, 2 switches,	$4\frac{1}{2}$ x $4\frac{9}{16}$,, ...		1.20
,, 3183.	,, 3 ,,	$4\frac{1}{2}$ x $6\frac{3}{8}$,, ...		1.80
,, 3184.	,, 4 ,,	$4\frac{1}{2}$ x $8\frac{3}{16}$,, ...		2.40
,, 3185.	,, 5 ,,	$4\frac{1}{2}$ x 10 ,, ...		3.00
,, 3186.	,, 6 ,,	$4\frac{1}{2}$ x $11\frac{13}{16}$,, ...		3.60
,, 3187.	,, 7 ,,	$4\frac{1}{2}$ x $13\frac{5}{8}$,, ...		4.20
,, 3188.	,, 8 ,,	$4\frac{1}{2}$ x $15\frac{7}{16}$,, ...		4.80

Lock Gang Switches.

Use the regular gang switches and plates in conjunction with the universal lock No. 2384.

Perkins Push Button Switches, 250 Volts.

Gang Switches Only.		Std. Pkg.	Each.
No. 2201.	10-amp., single-pole.....	50	$1.15
,, 2203.	10 ,, 3-point	50	1.65
,, 2204.	10 ,, 4 ,, ...	5	3.25
,, 2202.	10 ,, double-pole.....	50	1.65

Lock Gang Switches.

Do not require special plates. Cannot be operated without key even if plate is removed.

No. 2295.	10-ampere, single-pole.....	$1.65
,, 2296.	10 ,, 3-point	2.15
,, 2297.	10 ,, 4 ,, ...	3.75
,, 2298.	10 ,, double-pole.....	2.15

Plates Only (in one horizontal row).			Std. Pkg.	Each.
No. 3165.	For 1-switch,	$4\frac{1}{2}$ x $2\frac{3}{4}$ in.....	50	$ .35
,, 3166.	,, 2-switches,	$4\frac{1}{2}$ x $4\frac{9}{16}$,, ...		.70
,, 3167.	,, 3 ,,	$4\frac{1}{2}$ x $6\frac{3}{8}$,, ...		1.05
,, 3168.	,, 4 ,,	$4\frac{1}{2}$ x $8\frac{3}{16}$,, ...		1.40
,, 3169.	,, 5 ,,	$4\frac{1}{2}$ x 10 ,, ...		1.75
,, 3170.	,, 6 ,,	$4\frac{1}{2}$ x $11\frac{13}{16}$,, ...		2.10
,, 3171.	,, 7 ,,	$4\frac{1}{2}$ x $13\frac{5}{8}$,, ...		2.45
,, 3172.	,, 8 ,,	$4\frac{1}{2}$ x $15\frac{7}{16}$,, ...		2.80

SWITCHES, Socket.

G. E. Socket Switch.

Single-pole key switch, 1-ampere, 250 volts, standard package 100.

No. 28842. Snap switch.....each, $ .35

SWITCHES, Time.

Hartford Time Switch.

The Hartford automatic time switch is a device by which electric current is automatically turned *on* and *off* at such times as the user desires with no further attention than the weekly winding.

It consists of a high grade Seth Thomas clock and a standard electric switch, so arranged that each, in its operation, is independent of the other. This permits perfect regulation of the clock, and ensures accuracy of operation, as the clock has no work to perform other than its proper function of keeping time.

The mechanism is enclosed in a dust and weather proof, japanned iron case with double doors, the outer locking with a sub-treasury lock.

Type B.

This type throws the switch *on* and *off* daily, at the hours for which it is set, without further attention than the weekly winding. It is provided with a cut-out by which the clock and switch can be disconnected, allowing the clock to operate without throwing the switch. It has also a hand trip by which the switch can be operated without disturbing the clock.

Type C.

This type has a device by which the clock and switch are automatically disconnected one day in each week. While designed to omit the switch operation on Sunday, it can be set to disconnect on any day desired. It is also provided with a hand trip for operating the switch.

SWITCHES, Time.

Hartford Time Switch (Continued).

Type D.

This type is similar to Type B, but is arranged to throw the switch *on* for two periods each day. It was designed for the special purpose of attracting the attention of theatre crowds, to display windows, and signs before and after the performances, and the saving of the current in the interim.

Type G.

Known as the apartment hall switch. It throws on the main lights in the early evening, cuts these off at bed-time, and throws on a series of night lights which burn all night and are cut off at daylight.

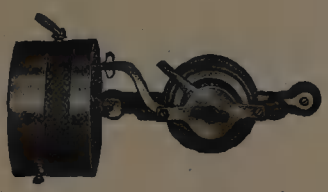
Type	B	C	D	G
10 A., 250 V., S.P. or D.P.	$24.00	$25.00	$26.00	$27.00
10 A., 250 V., T.P.	25.00	26.00	27.00	.....
20 A., 250 V., S.P. or D.P.	25.00	26.00	27.00	.....
20 A., 250 V., T.P.	26.00	27.00	28.00	.....
35 A., 250 V., S.P. or D.P.	26.00	27.00	28.00	.....
35 A., 250 V., T.P.	27.00	28.00	29.00	.....
50 A., 250 V., S.P. or D.P.	29.00	30.00	31.00	.....

Campbell Time Switch.

A moderate priced time switch consisting of a clock which trips a mechanically operated snap switch.

Style A turns lights either on or off.

Style B turns lights both on and off.



Types A and B.

Type A.

No. 1. 10-ampere, double-pole	$10.00
,, 2. 20 ,, ,,	11.50
,, 3. 35 ,, ,,	12.00
,, 4. 10 ,, triple-pole	12.00
,, 5. 20 ,, ,,	12.50
,, 6. 35 ,, ,,	13.00

Type B.

No. 1. 10-ampere, double-pole	$15.00
,, 2. 20 ,, ,,	16.50
,, 3. 35 ,, ,,	17.00
,, 4. 10 ,, triple-pole	17.00
,, 5. 20 ,, ,,	17.50
,, 6. 35 ,, ,,	18.00

Type C.

Operates on the regular jack-knife principle. Closes against a spring pressure.

Dials make one revolution in 24 hours, have two divisions from 1 to 12, and time is indicated by pointer on the left.

Type C operates twice daily for 7 days with one winding.

25-ampere, double-pole, 250 volts	$30.00
50 ,, ,, 250 ,,	32.00
100 ,, ,, 250 ,,	45.00
25 ,, triple-pole, 250 ,,	32.00
50 ,, ,, 250 ,,	35.00
100 ,, ,, 250 ,,	50.00



Type C Time Switch.

Type D.

Operates 4 times daily, 250 volts. Add 10 per cent to above prices.

Type E.

For high-tension circuits up to 3,000 volts. Prices on application. Operates twice daily.

Type F.

Same as Type E but operates 4 times daily. Prices on application.

Boxes for Above.

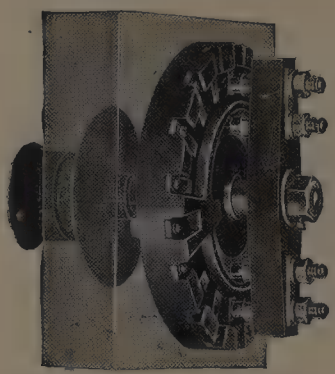
Weatherproof iron boxes with locked door for above switches as follows:

For Type A, add to list price of any size	$6.00
,, ,, B, ,, ,, ,, ,, ,, ,, ,,	8.00

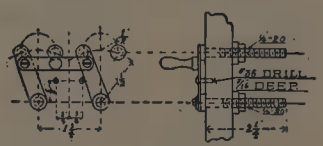
,, Types C and D, add to list price of any size 25 per cent.



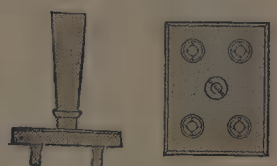
Cutter's Voltmeter Switch.



Hill's Voltmeter Switch, Style X.



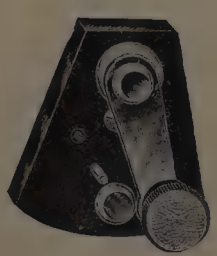
Style X. A. Voltmeter Switch.



Voltmeter Plug and Receptacle.



Wood Base Switch.



No. 172.

SWITCHES, Voltmeter.

Cutter's Voltmeter Switch.

For connecting one voltmeter with any one of two or more circuits so that a single first-class instrument can be used in place of half a dozen cheap and unreliable ones. Mounted on polished hard rubber base, with adjustable spring contacts. By connecting two of the terminals to the ground it becomes an excellent ground-detector, such as is now called for by the Board of Underwriters.

S-2350.	2-circuit.....	$5.00	S-2354.	8-circuit....	$11.00
S-2351.	3 ,, ...	6.00	S-2355.	10 ,, ...	12.00
S-2352.	4 ,, ...	7.50	S-2356.	12 ,, ...	13.50
S-2353.	6 ,, ...	10.00	S-2357.	16 ,, ...	16.00

Hill's Voltmeter Switch.

Style X.

Constructed so that the voltage reading of any number of circuits can be taken with but one voltmeter.

Have all parts visible from back of board.

All metal parts showing on face of board finished in heavy polished copper plate. Special finishes to order.

No. 39852.	4-circuit voltmeter switch.....	each,	$10.90
,, 39853.	6 ,, ,, ,, ...	,,	16.40
,, 39854.	8 ,, ,, ,, ...	,,	21.80
,, 39855.	10 ,, ,, ,, ...	,,	27.30
,, 39856.	12 ,, ,, ,, ...	,,	32.80

In ordering state thickness of board.

Style X. A.

No. 39857.	Single-pole, 2-circuit.....	each,	$1.55
,, 39858.	Double-pole, 2 ,, ...	,,	2.75

Hill Voltmeter Plug and Receptacle.

For 250 volts or less.

No. 39859.	4-point plug.....	each,	$4.00
,, 39860.	4 ,, receptacle.....	,,	3.15
,, 39861.	6 ,, ,, ...	,,	4.70
,, 39862.	8 ,, ,, ...	,,	6.25

SWITCHES, Wood and Rubber Base (see Switches, pole-changing).

Wood Base Switches No. S-2360.

Common wood base switches with nickel plated trimmings, for battery current only.

1-point switch	each,	$ .18	6-point switch	each,	$ .36
2 ,, ,,	,,	.20	7 ,, ,,	,,	.38
3 ,, ,,	,,	.22	8 ,, ,,	,,	.42
4 ,, ,,	,,	.26	9 ,, ,,	,,	.46
5 ,, ,,	,,	.34	10 ,, ,,	,,	.50

Style A Wood Base Switches No. S-2365.

A high grade wood base switch with an extra thick base to prevent warping and give room for nuts. A spring clip prevents arm from working loose.

1-point switch	each,	$ .24	4-point switch	each,	$ .40
2 ,, ,,	,,	.28	5 ,, ,,	,,	.48
3 ,, ,,	,,	.34	6 ,, ,,	,,	.52

Rubber Base Switches

(see Switches, pole-changing).

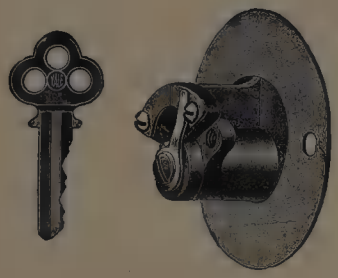
No. 172. Keystone Switch.

Hard polished rubber, hollow back, nickel trimmings.

1-point switch.....	each,	$ .60	
2 ,, ,, ...	,,	.70	
3 ,, ,, ...	,,	.80	
Lettering on knob, per switch.....	,,	.12½	



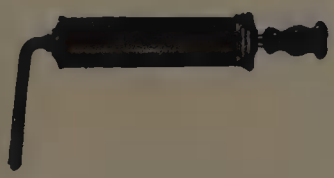
No. 168.



No. 95.



Trolley Rope Swivel.



Battery Syringe.



Cooking Table.

SWITCHES, Wood and Rubber Base.

Rubber Base Switches (Continued).

No. 168. Square Base Switch.

Hard polished rubber, with binding posts on front.

1-point switch.....each, $ .80
2 ,, ,, ... ,, .90
3 ,, ,, ... ,, 1.00
4 ,, ,, ... ,, 1.20

SWITCHES, Yale Lock.

Yale Lock Burglar Alarm Switch.

No. 95.

Placed on the outside of the door frames of stores, houses, etc., so that when the burglar alarm is set, persons having a key can enter without giving an alarm.

No. 95. Including heavy front flange and 3 keys..... $5.00

No. 95a.

With two escutcheons, one for inside and one for outside of door. The three keys fitting both escutcheons so that after switch has been turned off outside, key can be withdrawn and person entering can close the door, insert key on inside and reset switch.

No. 95a $10.60

No. 95b.

The same as No. 95, but with rod to go through door frame and fasten by nuts, on inside, so that it cannot be removed from outside.

No. 95b $3.75

No. 95c.

Same as No. 95b, but with heavy front flange.

No. 95c..... $5.60

No. 95d.

Same as No. 95, with the addition of a small wood box with lock and key that goes on inside of door, in which is a small switch controlled by a rod that passes through the door frame to Yale lock. The switch can be reset from inside, the same as No. 95a.

No. 95d..... $7.50

Only the genuine Yale lock used for these switches.

SWIVEL.

Trolley Rope Swivel.

To prevent the trolley rope from becoming twisted.

No. S-2370. Trolley rope swivel.....each, $ .20

SYRACUSE Drill (see D).

SYRINGE, Battery.

No. S-2375. Hard rubber battery syringe for removing acids, etc., from batteries....each, $3.00
No. S-2376. Extra pipes..... ,, .50
,, S-2377. ,, valves..... ,, .40

TABLE Clamp (see C).

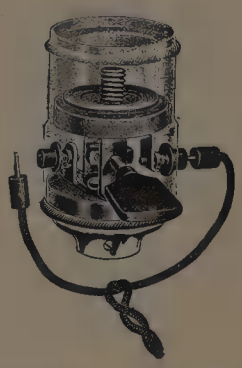
TABLE, Cooking.

Cooking Tables.

We furnish two styles, as listed below, but suggest to our customers that as any wood or slate or marble top table will answer quite as well as what we furnish, they can generally supply from a local source something equally or more satisfactory, as it is easier to fit a table to a kitchen than a kitchen to a table. The electrician who arranges the wires can easily provide for the plug receptacles.

No. 951. Is made of chestnut, finished in shellac varnish, with plain white wood top. Is provided with a sliding shelf and drop leaf, which makes a closed cupboard when the shelf is pushed back and the leaf down. Size, 43 in. long, by 23 in. wide, by 40 in. high over all. Without plug receptacles. With receptacles add $1.00 each to list price of table, price, $10.00

No. 953. Is a slate table with shelf back and sides, oak legs and frame. The slate is heavy, smooth finish, and is put together with screws. Is shipped "knocked down" with all necessary parts to enable it to be easily assembled. The wooden portion is sent "set up." Without plug switch receptacles. With receptacles add $1.00 each to list of table. Size 48 x 26 x 52 in. high over all.....price, $33.00



Extension Tap. No. S-2380.



No. 35351. Hubbell Tap.



Vetter Current Tap.



Acme Tape.



Splicing Compound.

TABLE, Push (see P).

TABLES, Wire (see last pages of Catalogue).

TABLET Boards (see Panels).

TACKS (see Staples).

TAGS, Cable.

Brass Cable Tags.

Useful in identifying motor leads, ends of cables, etc.

No. 17562 ..... per 1000, $6.00

TAILOR'S Irons (see I).

TAKE-UP Reels (see R).

TALLY Register (see Counter, pole).

TAMPING Bar (see B).

TAP, Extension (see Plugs).

G. E. Extension Tap.

Screws into regular Edison socket and has provision for cord extension out of side of shell, and lamp may also be used in the socket part.

	Std. Pkg.	Each.
No. 35351. Extension tap	100	$ .60

Hubbell Current Tap.

This current tap is all porcelain, simple and compact. The contacts are enclosed and there are no exposed binding screws. Made in both series and multiple.

	Std. Pkg.	Pkg. Wt.	Each.
No. 5454. Edison current tap, multiple	50	20	$. 50
,, 5510. ,, ,, ,, series	50	20	.50

Socket Extension Tap.

By means of this tap a fan motor, desk shade, or table lamp may be instantly connected or disconnected at a lamp socket without interfering with the use of the lamp.

No. S-2380. Price per set (to fit any socket) ..... net,		$. 30
,, S-2381. Special punch	,,	2.00

Vetter Current Tap.

No. S-2385. Edison series ..... each,		$1.00
,, S-2386. Thomson-Houston series	,,	1.00
,, S-2387. Westinghouse series	,,	1.00
,, S-2388. Edison parallel	,,	1.00
,, S-2389. Thomson-Houston parallel	,,	1.00
,, S-2390. Westinghouse parallel	,,	1.00

TAP Suspension, Feeder (see Suspensions).

TAPES, Friction.

Friction Tapes.

Made from the best quality of fabrics, thoroughly saturated with adhesive compound. Furnished regularly in rolls ¾ inch wide. Other widths cut to order at short notice.

No. 264. Regular black (competition) tape, per lb.,			$ .50
,, 269. " S.-H. Special " black tape	,,		.80
,, 204. White " Walpole " tape	,,		.60
,, S-2400. Acme black tape	,,		1.00
,, S-2401. Paragon black tape (for railway work)	,,		.50
No. S-2402. Grimshaw black tape	,,		1.40
,, S-2403. ,, white ,, ...	,,		1.30
,, S-2405. Manson black tape	,,		1.10
,, S-2408. Okonite ,, ,, ...	,,		1.70
,, S-2410. P. & B. ,, ,, ...	,,		1.00
,, S-2415. Competition tape	,,		.80

Splicing Compounds.

Rubber tape without cloth fabric, used to cover splices before taping with friction tape.

No. 215. S.-H. splicing compound ..... per lb.,			$. 90
,, S-2420. G. E. ,, gum	,,		1.50

TAPES, Friction (Continued).

Armature Tape.

A special light-colored tape of thin fabric with high quality adhesive compound on one side.

No. S-2425. Armature tape ..... per lb., $1.50

Field Tape.

A heavy fabric with a thick coating of adhesive rubber compound, especially useful in covering fields.

No. S-2430. " Dryfield " tape ..... per lb., $1.00

TAPES and Sleevings.

Cotton and Linen Tapes and Sleevings.

The tapes best suited for winding armature coils are the electric, linen, special linen, and white calendered, depending on the size of the armature slots and the quality of the work desired. These tapes are also suitable for winding the fields of small motors.

The tapes best suited for large motor and generator fields are the surgical webs, fine twilled tapes, medium and heavy stay bindings and gray stay bindings.

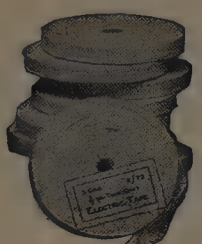
The tapes best suited for winding railway motor fields are the field tapes.

Thicknesses given are approximate. Broken packages charged extra.

" Electric " Tape, No. S-2435.

Put up in packages of 5 gross yards, 72 yards in a roll. Calendered to .006 inch thick. The 1½-inch packages are 3 gross yards, of 36 and 72 yards per roll.

½-inch " Electric " tape	per gross yds.,	$ .78
⅝ " " "	" " "	.88
¾ " " "	" " "	.92
⅞ " " "	" " "	1.16
1 " " "	" " "	1.26
1⅛ " " "	" " "	1.48
1¼ " " "	" " "	1.60
1½ " " "	" " "	1.94



Tapes.

" Linen " Tape, No. S-2445.

Put up in packages of 5 gross yards, 72 yards in a roll. Calendered to .006 inch thick. The 1½-inch packages are 3 gross yards of 36 and 72 yards per roll.

½-inch linen tape	per gross yds.,	$ .93
⅝ " " "	" " "	1.10
¾ " " "	" " "	1.27
⅞ " " "	" " "	1.36
1 " " "	" " "	1.60
1½ " " "	" " "	2.40

" Special Linen " Tape, No. S-2455.

Put up in packages of 5 gross yards, 36 and 72 yards in a roll. Calendered to .006 inch thick.

¾-inch special linen tape ..... per gross yds., $1.10

White Calendered Tape, No. S-2460.

Put up in packages of 5 gross yards, 72 yards to the roll, .007 inch thick.

½-inch white calendered	per gross yds.,	$1.06
⅝ " " "	"	1.24
¾ " " "	"	1.36
⅞ " " "	"	1.64
1 " " "	"	1.76

Gray Stay Binding (Regular), No. S-2470.

Put up in packages of 3 gross yards, 36 yard rolls. Thickness, .012.

¾-inch regular stay binding	per gross yds.,	$1.04
1 " " " "	"	1.30

Surgical Web, No. S-2475.

Put up in packages of 5 gross yards, 36 and 72 yard rolls, .019 inch thick.

1-inch surgical web ..... per gross yds., $2.70

Medium Stay Binding, No. S-2480.

Put up in packages of 3 gross yards, 36 and 72 yard rolls, .015 inch thick.

1½-inch medium stay binding ..... per gross yds., $2.60

TAPES and Sleevings.

Cotton and Linen Tapes and Sleevings
(Continued).

Heavy Stay Binding, No. S-2485.

Put up in packages of 3 gross yards, 36 and 72 yard rolls, .017 inch thick.

1¼-inch heavy stay binding	per gross yds.,	$2.34
1½ ,, ,, ,,	,,	2.76
2 ,, ,, ,,	,,	4.04

Field Tape, No. S-2490.

The 1-inch field tape is put up in packages of 3 gross yards, 36-yard rolls; the 1¼-, 1½-, and 2-inch in packages of 2 gross yards, 36-yard rolls; .020 inch thick.

½-inch field tape	per gross yds.,	$1.60
¾ ,, ,, ,,	,,	2.06
1 ,, ,, ,,	,,	2.50
1¼ ,, ,, ,,	,,	3.15
1½ ,, ,, ,,	,,	3.75
2 ,, ,, ,,	,,	5.20

Fine Twilled, No. 4238.

Put up in packages of 3 gross yards, in 36-yard rolls. Thickness, .010 inch.

½-inch fine twilled	per gross yds.,	$1.28
⅝ ,, ,, ,,	,,	1.44
¾ ,, ,, ,,	,,	1.76

Silk Tape, No. S-2500.

Put up on spools of 100 yards each. Thickness, .004 inch.

¼-inch silk tape	per 100 yds.,	$1.50
⅜ ,, ,, ,,	,,	1.70
½ ,, ,, ,,	,,	2.00

Gray Sleevings.

Put up in standard packages of about 10 pounds each, or in special packages or tubes to order.

No. 0.	500 yds.	per lb., covering	No. 18 wire...	per lb., $1.20
,, 1.	280 ,,	,, ,,	,, 13 ,, ..	,, .90
,, 2.	180 ,,	,, ,,	,, 9 ,, ..	,, .90
,, 3.	230 ,,	,, ,,	,, 10 ,, ..	,, .90
,, 4.	259 ,,	,, ,,	,, 8 ,, ..	,, .90
,, 5.	145 ,,	,, ,,	,, 6 ,, ..	,, .90
,, 6.	140 ,,	,, ,,	,, 4 ,, ..	,, .90
,, 7.	130 ,,	,, ,,	,, 4 ,, ..	,, .90
,, 8.	100 ,,	,, ,,	,, 3 ,, ..	,, .90
,, 9.	110 ,,	,, ,,	,, 1 ,, ..	,, .90
,, 10.	70 ,,	,, ,,	,, 2 ,, ..	,, .90
,, 11.	60 ,,	,, ,,	,, 2 ,, ..	,, .90
,, 12.	79 ,,	,, ,,	,, 00 ,, ..	,, .90
,, 13.	155 ,,	,, ,,	,, 7 ,, ..	,, .90
Colored sleeving additional				,, .10



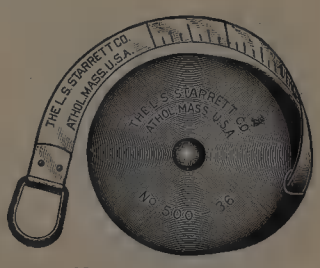
Gray Sleeving.

TAPES, Steel.

No. 500 Pocket Steel Tapes.

These tapes are ¼ inch wide, in well finished nickel plated cases, with rounded edges. Spring wind, with centre stop. Graduated in inches and sixteenths of an inch.

36-inch, in case, 1¼ inch diameter	each,	$ .60
60 ,, ,, ,, 1⅝ ,, ,,	,,	.75
72 ,, ,, ,, 1 11/16 ,, ,,	,,	.80
96 ,, ,, ,, 1 13/16 ,, ,,	,,	1.15



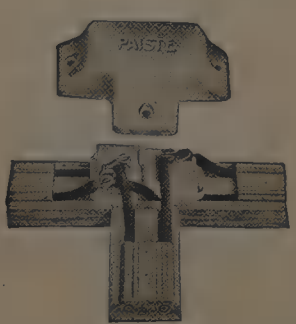
No. 500 Steel Tape.

TAPLETS.

Paiste Taplets.

For making branches in lines of moulding wiring.

		Std. Pkg.	Each.
No. 4090.	2-wire single branch	100	$ .30
,, 4091.	3 ,, ,, ,,	50	.45
,, 4092.	3 ,, to 2-wire single branch	50	.40
,, 4093.	3 ,, ,, ,, double ,,	25	.60
,, 4094.	2 ,, double branch	25	.45



Paiste Taplet.

TEA Bell (see Bells).

TEA Kettle (see K).

TEA Pots (see P).

TEE, Speaking Tube (see Tube).

TELEGRAPH Instruments (see I).

TELEPHONES, Battery and Intercommunicating.*

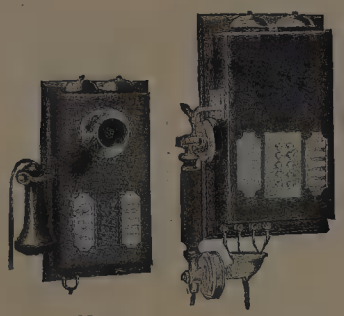
C. & S. Ideal Automatic Button Switch, Common Return System.

Small number of parts accurately made. The automatic release is a solid brass bar of novel design, roller bearing. Mechanical trip, simple, effective, and durable. All contacts of German silver and pointed; each button operated through individual spiral springs.

All buttons automatically restored by hanging up receiver or by pressing another button.

Call can be made with receiver on or off hook. Incoming lines connect direct to terminals and clips.

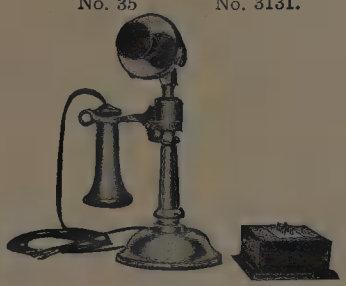
Master's call button for office can be furnished. Other finishes than those stated to order.



No. 35 No. 3131.

No. 35. Wall set, golden oak finish.
10 stations or less $15.30
Each additional 2 stations 1.40

No. 3131. Hand-microphone set, golden oak finish.
10 stations or less $22.00
Each additional 2 stations 1.40



No. 3814.

No. 3814. Desk set, nickel finish. Switch is entirely separate from telephone and can be placed in any convenient position. Incoming call restores home station connection.
10 stations $25.00
Each additional station ..... .90



No. 3835.

No. 38.

No. 38. Desk set, nickel finish, switches in base.
10 stations $25.00
Each additional station ..... .90

No. 3835. Desk set, nickel finish. Switch is entirely separate from telephone and can be placed in any convenient position. Incoming call restores home station connection.
10 stations $25.00
Each additional station ..... .90

No. 3530. Magneto call wall set, oak finish.
10 stations $26.00
Each additional 2 stations 1.40
For desk sets to go with this system, add to list prices for magneto signal bell, 8.00



No. 3527.

No. 3530.

No. 3527. Flush set; oak wood front and nickel metal front. Any metal or wood finish to order. Size of front plate for 10 stations, 8 inches wide by 9 inches high. Depth, back of plate, 3 inches.
10 stations or less $25.00
Each additional button 1.40
Outlet boxes made from $\frac{3}{8}$-inch stock for 10 stations, inside dimensions, $6\frac{3}{4}$ inches wide by $7\frac{3}{4}$ inches high by 3 inches deep.

* Batteries are not included in price of telephones. Special catalogues and diagrams of telephones on request.



No. 32.



No. 29.



No. 2732.



No. 31.



No. 30.



No. 1432.



No. 19.



No. 20.



No. 21.

TELEPHONES, Battery and Intercommunicating

(Continued).

C. & S. Automatic Button Switch Intercommunicating Telephones, Metallic Circuit, Premier Type.

The Premier type of automatic button switch intercommunicating telephone equipment is designed especially for users desiring the highest grade obtainable.

In this metallic circuit type or apparatus any number of pairs of telephones may be in use simultaneously without the possibility of interference with each other.

Can also be furnished for common return systems.

No. 32. Wall set, oak finish, including retardation coil.

10 stations, metallic circuit	$23.00
15 ,, ,, ,,	27.00
20 ,, ,, ,,	31.00
25 ,, ,, ,,	35.00
30 ,, ,, ,,	39.00

No. 29. Wall set, oak finish, including retardation coil.

10 stations, metallic circuit	$23.00
15 ,, ,, ,,	27.00
20 ,, ,, ,,	31.00
25 ,, ,, ,,	35.00
30 ,, ,, ,,	39.00

No. 2732. Flush set, nickel finish (special finishes to order), including retardation coil.

10 stations, metallic circuit	$28.00
15 ,, ,, ,,	32.00
20 ,, ,, ,,	36.00
25 ,, ,, ,,	40.00

No. 31. Hand-microphone set, oak finish, including retardation coil.

10 stations, metallic circuit	$28.00
15 ,, ,, ,,	32.00
20 ,, ,, ,,	36.00
25 ,, ,, ,,	40.00
30 ,, ,, ,,	44.00

No. 1432. Desk set, nickel finish stand, oak switch box.

10 stations, metallic circuit	$28.00
15 ,, ,, ,,	32.00
20 ,, ,, ,,	36.00

No. 30. Wall set, magneto call, oak finish, battery box included when specified on order.

10 stations, metallic circuit	$31.00
15 ,, ,, ,,	35.00
20 ,, ,, ,,	39.00
25 ,, ,, ,,	43.00
30 ,, ,, ,,	47.00

C. & S. Battery Call Telephones, Private Line, Apartment House, Hotel, and School Systems.

Adapted to all systems where a single station type of instrument is desired.

All private line instruments are wired for four posts, for line and battery connections, and two posts for receiver cord connections.

Any of these instruments may be used in connection with annunciators or switchboards for hotel systems, or for school systems, etc.

No. 19. Telephone, oak finish granular carbon transmitter, watch-case receiver, induction coil.....each, $5.00

No. 20. Telephone, ebony finish, nickel trimmings, bi-polar watch-case receiver, induction coil and transmitter, each, 7.50

No. 21. Telephone, oak finish, pony receiver, induction coil and transmitter, each, 8.50

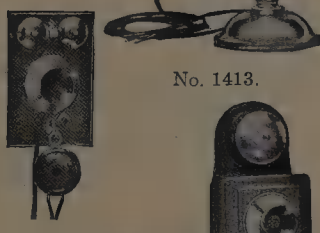


No. 24. No. 25.

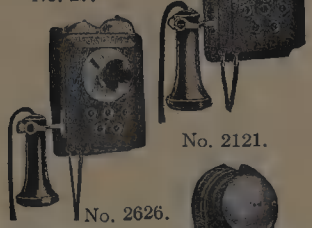


No. 26.

No. 1413.



No. 27.



No. 2121.



No. 2626.

No. 2727. No. 2222.



No. 2424.

No. 1414.

TELEPHONES, Battery and Intercommunicating.

C. & S. Battery Call Telephones, Etc. (Continued).

Each

No. 24. Wall telephone, oak finish, receiver induction coil, transmitter, and arm, complete..... $10.00

No. 25. Hand-microphone set, oak finish terminal box, containing buzzer, calling button, and induction coil, complete, with hand-microphone and switch lever in handle... 16.50

No. 26. Wall telephone, oak finish, with bi-polar receiver, transmitter, and induction coil.. 9.00

No. 1413. Desk set, nickel finish, induction coil, buzzer, and button in base of stand, bi-polar receiver, with green silk cords, and transmitter, complete..... 17.00

No. 27. Flush type, for apartments, hotels, and residences.
Metal plate front in oxidized, brush brass, or nickel; wood finish in oak, walnut, mahogany, etc. Size, 7½ x 5 inches.
Nickel finish throughout..... 14.00

C. & S. Battery Call Telephones, Multiple System, Selective Ringing.

For use where it is desired to call each station selectively from any other station, and where all of the telephones are connected on one pair of wires for the talking. Several parties may be on one line and discuss a matter involving all of them.

These instruments may be used as central instruments with as many buttons as there are outlying stations.

No. 2121. Wall set, selective ringing, oak finish.
3 buttons..... $10 00
Each additional button..... .50

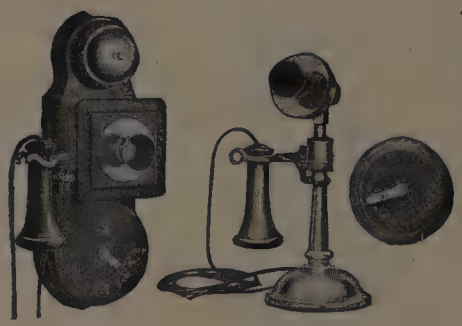
No. 2222. Wall set, selective ringing, oak finish.
5 buttons..... 12.00
Each additional button..... .50

No. 2626. Wall set, selective ringing, oak finish.
3 buttons..... 10 00
Each additional button..... .50

No. 2727. Flush set, selective ringing, nickel finish (other finishes to order).
Size of front plate up to 12 stations, 6½ x 9½ in.
Depth back of plate, 2½ inches.
5 buttons..... 16 50
Each additional button..... .50

No. 2424. Wall set, oak finish.
5 buttons..... 13.00
Each additional button..... .50

No. 1414. Desk set, selective ringing, nickel finish, green silk cords, 5 feet long.
3 buttons in base..... 17.00
5 " " " 19.00
Each additional button..... 1.00



No. 22. No. 1422



No. 28. No. 43. No. 61.



No. 64.

No. 65.



No. 86.

TELEPHONES, Battery and Intercommunicating (Continued).

C. & S. Intercommunicating Telephones, Positive Contact Switch, Common Return System.

In this system the bell on any telephone may be rung regardless of its switch lever, but in order to complete the talking circuit it must be replaced on the home point.

No. 22. Wall set, oak finish.

5 lines, common return	$12.00
10 ,, ,, ,,	12.70
15 ,, ,, ,,	13.40
20 ,, ,, ,,	14.30
25 ,, ,, ,,	16.50
30 ,, ,, ,,	17.20

No. 1422. Desk set, nickel finish.

With 5-line switch	18.00
,, 10 ,, ,,	18.50
,, 15 ,, ,,	19.20
,, 20 ,, ,,	20.00
,, 25 ,, ,,	22.50
,, 30 ,, ,,	23.20

No. 28. Hand-microphone set, oak finish.

5-line switch, common return	18.00
10 ,, ,, ,, ,,	18.50
15 ,, ,, ,, ,,	19.20
20 ,, ,, ,, ,,	20.00
25 ,, ,, ,, ,,	22.50
30 ,, ,, ,, ,,	23.20

No. 43. Wall set, magneto call, oak finish.

5-line switch, common return	21.00
10 ,, ,, ,, ,,	21.50
15 ,, ,, ,, ,,	22.00
20 ,, ,, ,, ,,	22.50
25 ,, ,, ,, ,,	24.50
30 ,, ,, ,, ,,	25.70

C. & S. Switchboards for above Systems.

No. 61. Annunciator and jackboard, oak finish.

25 numbers or less ..... per no.,	$3.50
26 ,, ,, more ..... ,,	3.00
Operators wall set ..... extra,	8.00
Desk or H. M. T. set ..... ,,	15.00
Each cord circuit with listening jack ..... extra,	5.00

No. 65 Switchboard, oak finish.

50 lines, 5-cord circuits	300.00
100 ,, 10 ,, ,,	600.00
200 ,, 20 ,, ,,	1,200.00

No. 64. Switchboard, wall type, oak finish.

20 numbers, 3-cord circuits	150.00
30 ,, 3 ,, ,,	200.00
50 ,, 5 ,, ,,	300.00

No. 86. Switchboard, desk type finish to order.

30 numbers	200.00
50 ,,	250.00
100 ,,	600.00
200 ,,	1,200 00

TELEPHONES, Battery and Intercommunicating (Continued).



"Housefone."

Sumter Number Sixty "Housefone."

In offering the "Housefone" to our customers, we make no attempt to compete with the many worthless instruments usually offered for sale for this class of work.

The "Housefone" is thoroughly well made throughout. The hook springs are pure German silver, and are long and flexible, making the hook action positive and durable.

The transmitter is not of the usual cheap design and construction found on this type of instrument, but is well made throughout, producing a tone effect wonderfully natural and distinct, and will not "pack." Transmitter completely encased in nickel-plated brass shell and mounted on outside of door.

The receiver is of the double-pole, long-distance type, and is equipped with concealed binding posts and standard receiver cord.

Each telephone is equipped with a regular induction coil, same as standard long-distance instruments. This renders the conversation clear and distinct, and makes the instrument suitable for talking over long lines.

The bells are standard double-gong bells, the gongs being nickel-plated *brass*, supported by iron posts instead of being simply screwed to the woodwork.

The push button is mounted on the face of the door, where it is easily seen and accessible for use.

The woodwork is handsomely finished, and all exposed metal parts are nickel plated.

The line and battery terminals are plainly marked.

The wires connecting push button with other mechanism in the 'phone are silk-covered flexible wires which will not break when the door is opened and closed.

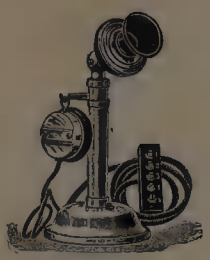
These 'phones will ring over any length of line it is possible to ring an ordinary battery bell over. They will talk as far as any telephone.

Nothing but the very best of material and workmanship enters into the construction of this instrument, which we fully guarantee to give entire satisfaction when properly installed.

We do not hesitate to claim that the "Housefone" is far superior to any other instrument manufactured and sold for a like purpose.

No. 60. "Housefone" complete, with long-distance transmitter, bi-polar receiver, etc.....each, $7.00

The above price does not include batteries.



No. 11.

Short Distance Desk Set.

A durable short-distance desk set, made in full nickel, with self-contained hook, permanent magnets in receiver, induction coil in base.

No. 11. Desk set.....each, $10.50



No. 60B.

Central Energy Intercommunicating System.

This 'phone is practically automatic as it does not require the return of the switch to the home point after using. Finely finished oak case, solid back transmitter, self-contained, bi-polar receiver, latest two-piece switch hook, and 2½-inch bells.

To call a station turn switch to number wanted and press button on side of case.

No. 60B. Telephone, 10 stations.....each, $13.00
Superintendent's calls, extra..... ,, 1.00



"New Beauty" Type.

TELEPHONES, Magneto.

Sumter Wall Telephones, "New Beauty" Type.

Series Telephones.

Series telephones are suitable for local exchange work where there are not more than three or four instruments on one line.

The cabinet is of standard quarter-sawed oak of piano polish finish, equipped with No. 43 long-distance solid back piston type transmitter, bi-polar receiver with removable spools, 3-bar series generator with automatic shunt and heavy brass gear wheels, etc., 250-ohm adjustable ringer with machine screw adjustment for armature and bell posts, long lever platinum pointed hook switch, long distance induction coil, carbon disc lightning arrester. All parts are handsomely finished throughout. The cabinets accommodate two cells of standard size dry battery.

No. 250.	3-bar	10,000-ohm	gen.....	each,	$17.50
,, 251.	,,	15,000	,, ,, ...	,,	18.00
,, 253.	,,	20,000	,, ,, ...	,,	18.50
,, 254.	4-bar	40,000	,, ,, ...	,,	20.00

Bridging Telephones.

For party-line service where several telephones are used on the same circuit, we recommend bridging telephones.

These instruments are equipped with our 4-bar generator, especially designed to deliver a sufficient quantity of current to ring a large number of bells on a long line.

Where eight or more telephones are placed on one line, we recommend using our No. 256B telephone, which is equipped with 1600-ohm ringer.

The resistance of the ringers affects the ringing on bridging lines, and where more than 8 or 10 'phones are placed on one line, only high resistance ringers of 1600 ohms resistance or more should be used.

All the 'phones on one line must have ringers of the same resistance. Remember this when purchasing instruments for use on lines already equipped with telephones.



Mammoth 'Phone, open, showing 3 Batteries and 5-Bar Generator.

No. 250B.	With	1000-ohm	ringer.....	each,	$20.50
,, 252B.	,,	1200	,, ,, ...	,,	21.00
,, 255B.	,,	1500	,, ,, ...	,,	21.50
,, 256B.	,,	1600	,, ,, ...	,,	22.00
,, 257B.	,,	2000	,, ,, ...	,,	22.50
,, 258B.	,,	2500	,, ,, ...	,,	23.00

"Mammoth" Bridging Telephones.

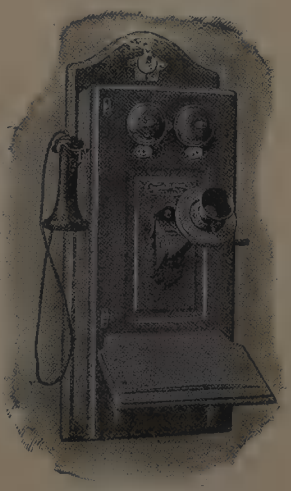
The Sumter "Mammoth" is designed for heavy duty, such as required in rural line work where a great number of telephones are placed on one line.

While we do not recommend placing a great number of instruments on one line, owing to the confusion caused by so many signals — as all the bells ring at once — yet it was to meet just such an overloaded condition that we designed the "Mammoth."

The current capacity of this generator is unequaled, owing to the great magnetic strength of the fields, the exceedingly small air gap and properly proportioned windings. Any number of bells it would be practical to ring signals on can be satisfactorily operated with it.

The gear wheels are heavy cast brass with deeply cut teeth, noiseless in operation.

For rural lines we particularly recommend the No. 356B as an instrument that will give satisfaction under the most severe conditions.



Mammoth, 'Phone for Country Lines.

				Each.
No. 350B.	1000-ohm	ringer.....		$23.00
,, 352B.	1200	,,	,, ...	23.50
,, 355B.	1500	,,	,, ...	24.00
,, 356B.	1600	,,	,, ...	24.50
,, 357B.	2000	,,	,, ...	25.00
358B.	2500	,,	,, ...	25.50

TELEPHONES, **Magneto.** (Continued).

Sumter Wall Telephone, " Five-Fifty " Type.

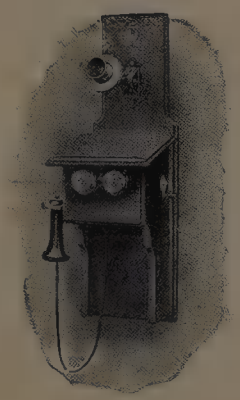
Series Telephones.

Series telephones are suitable for local exchange work where there are not more than three or four instruments on one line.

The cabinet is of standard quarter-sawed oak, of piano polish finish, equipped with No. 43 long-distance solid back piston type transmitter, bi-polar receiver with removable spools, 3-bar series generator with automatic shunt and heavy brass gear wheels, etc., 250-ohm adjustable ringer with machine screw adjustment for armature and bell posts, long lever platinum pointed hook switch, long distance induction coil, carbon disc lightning arrester. All parts are handsomely finished throughout. The cabinets accommodate two cells of standard size dry battery.

In the " Five-Fifty " instrument the universal type of common battery cabinet is slightly modified to accommodate the generator and batteries necessary in a magneto telephone.

The ringer is mounted upon a hinged panel, which swings outwardly, exposing all the working parts of the instrument. *Standard Sumter parts* are used throughout.



" Five Fifty " Type 'Phone.

	Each.
No. 550. 3-bar 10,000-ohm generator	$18.50
,, 551. ,, 15,000 ,, ,,	19.00
,, 553. ,, 20,000 ,, ,,	19.50
,, 554. 4-bar 40,000 ,, ,,	21.00

Bridging Telephones.

For party-line service, where several telephones are used on the same circuit, we recommend bridging telephones.

These instruments are equipped with our 4-bar generator, especially designed to deliver a sufficient quantity of current to ring a large number of bells on a long line.

Where eight or more telephones are placed on one line, we recommend using our No. 556B telephone, which is equipped with 1600-ohm ringer.

All the 'phones on one line must have ringers of the same resistance. Remember this when purchasing instruments for use on lines already equipped with telephones.

	Each.
No. 550B. 1000-ohm ringer	$21.50
,, 552B. 1200 ,, ,,	22.00
,, 555B. 1500 ,, ,,	22.50
,, 556B. 1600 ,, ,,	23.00
,, 557B. 2000 ,, ,,	23.50
,, 558B. 2500 ,, ,,	24.00

Sumter Desk Telephone.



Desk Stand.

One of the most frequent sources of trouble to the telephone manager is the desk stand. Usually these instruments are of very light construction, and owing to their being easily upset, soon become a prolific source of trouble.

Our desk stand is designed to eliminate all weak points. The base is a heavy casting, beautifully finished in hard enamel, applied by a baking process. The stem and all other parts are nickel plated. The entire instrument presents a finished and beautiful appearance. The hook is operated by a heavy flat spring. This eliminates all trouble due to the use of spiral springs which soon weaken and make poor contact. The hook contact springs are held under pressure; there is no lost motion present. All contacts are of genuine platinum. The hook lever forms no part of the circuit. The transmitter is mounted on an adjustable head, rendering adjustment easy and positive. Transmitter cord is entirely concealed in the stem. The bottom of the desk stand is removable, allowing easy access to induction coil, cord terminals, etc. The stem shell is removable to allow of inspection or repair of the hook springs. Nothing but the best green silk conducting cords are used. These cords are

(*Continued on next page.*)

TELEPHONES, Magneto.

Sumter Desk Telephone (Continued).

equipped with nickel tips. The standard length cord is four feet, but any length cord can be furnished upon request. A handsomely finished terminal block is furnished with each instrument with proper posts for making battery, line, and magneto connections.

No. 19S. Series desk stand only, with terminal block, transmitter, receiver, 4-ft. green silk connecting cords, No. 5D induction coil mounted in base.....each, $13.00

No. 19B. Same as 19 S, but for bridging, each, 13.00

,, 19C. Same, for common battery with 43C transmitter and 5CD induction coil, with No. 47C receiver....each, 14.00

No. 19CS. Same, but for common battery, with 43S transmitter and 5SD induction coil, with 47S receiver....each, 14.00

Desk set with push button in base.....extra, 1.00

Also furnished in N. E. T. style with nickel plated base.



No. 1404.

Sumter Desk Sets Complete.

Complete desk set for series lines, consisting of No. 113 magneto box, oak, with 3-bar 10,000-ohm generator and 250-ohm ringer and complete with No. 19S desk stand..... $20.00

For bridging work we furnish our No. 114 magneto with 4-bar generator and 1000-ohm ringer, with complete No. 19B stand..... 23.00

Or, No. 114C magneto, with 1600-ohm ringer, otherwise the same as above.. 24.50



No. 51.



No. 98.

C. & S. Desk Sets.

No. 1404. Magneto desk set only, consisting of nickel plated stand with No. 11 transmitter and self-contained long type receiver..... $15.00

No. 1413. Battery desk set, same as above, but with push in base for battery call..... 16.00

TELEPHONES, Parts of (see also Bells, Buzzers, Batteries, etc.).

C. & S. Receivers.

No. 51. Bi-Polar receiver complete with cord..... $2.25

No. 53. Watch case receiver..... 1.40

,, 98. Hand microphone with lever in handle..... 13.00

Without lever in handle..... 12.00



H.-C. Hand Microtelephone.

H.-C. Microtelephone.

The construction is such that when the receiver is held to the ear, the mouthpiece of the transmitter is in the proper position for speaking.

There is a push button in the handle which throws the batteries in or out of circuit at the will of the operator, thus prolonging the life of the batteries, as they are automatically cut out when the set is not in use.

No. S-2520. Hand microtelephone.. includes 5-ft. 3-conductor cord.....each, $11.00

TELEPHONES, Parts of (Continued).



H.-C. Watch-Case Receiver.

H.-C. Watch-Case Receiver.

Hard rubber cap. Rubber or metal back; aluminum inside shell; laminated magnets which are permanent and reliable.

Diaphragm adjustment not dependent on outside shell.

No. 3–202A. Hard rubber back, without cord ..... each, $1.50
No. 3½–202A. Hard rubber back (3-way), without cord ..... each, 1.75
No. 4–202A. Metal back ..... ,, 1.25



Double Head-Band Receiver.



Single Head-Band Receiver.

H.-C. Double Head-Band Receiver.

Soft rubber air-cushion caps make these receivers comfortable for the operator. Perfect hearing even in noisy places.

Receivers are of the watch-case pattern pivoted so as to conform to head.

No. 6–202A. Double head-band receiver, complete with cord and rubber cushion caps, each, $9.00

H.-C. Single Head-Band Receiver.

Consists of a standard pattern watch-case receiver with hard rubber shell, interior aluminum case, and a leather covered steel band suitably padded, which fits over head of operator. Receiver mounted on pivots. Shells and caps are replaceable.

No. 5–202A. Single head-band receiver, without cord ..... each, $4.00
No. 5½–202A. Single head-band receiver (3-way), without cord, each, 4.25

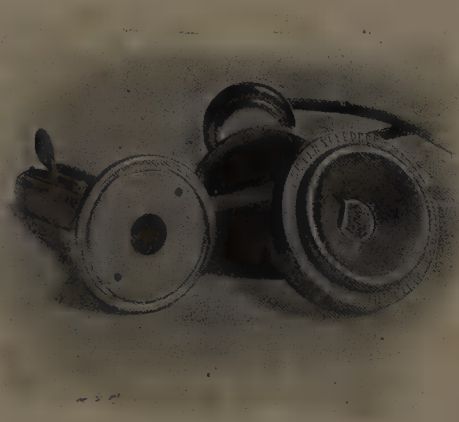


Cast Back Telephone Receiver.

Manhattan Watch-Case Receiver.

A good serviceable solid metal back receiver at a low price. Size 2¼ inches diameter, weight 6 ounces, resistance 75 ohms. Rigid adjustment.

No. 1448. Watch-case receiver only S. P., each, $1.00
No. 1449. Watch-case receiver only D. P., each, 1.50



" Forty-Eight " Receiver.

Sumter Telephone Receiver.

In the "Forty-Eight" receiver the shell is made of genuine hard rubber moulded in one piece. This cannot come apart as it is seamless. The threads are deeply cut and the rubber ear cap is exceptionally heavy, being the heaviest receiver cap on the market.

This rubber shell encloses every metal part of the receiver, but the receiver body is not fastened to the shell in any manner. The shell is extra thick and is especially designed to withstand hard knocks.

The coils and pole pieces are enclosed in a case of heavy brass. Upon the edge of this brass cup threads are cut and, when the diaphragm is in place, a brass ear piece, corresponding to the ordinary outer rubber cap, is securely screwed in place upon the brass cup. It will be seen from this that every working part of the receiver is entirely enclosed including the diaphragm by a metal case which effectually prevents the diaphragm from ever becoming loose in case of damage to the outer rubber casing. It will also be noticed that the receiver will operate per-

(*Continued on next page.*)

TELEPHONES, Parts of.



No. 48 Complete.

Sumter Telephone Receiver (Continued).

fectly without any case at all, and that no part of the receiver is exposed to mechanical injury. The metal cap can if necessary be locked in place by a spanner wrench which effectually prevents the curious from tampering with the inside of receiver, as it is absolutely impossible to unscrew the inner cap when it is thus put in place without using the wrench.

		Each.
No. 48.	Sumter receiver with hard rubber shell (magneto)	$3.00
,, 48C.	,, ,, ,, ,, ,, ,, (common battery, 60 ohm)	3.00
No. 48S.	Sumter receiver with hard rubber shell (common battery, 25 ohm)	3.00

Above price includes 36-inch cord with each receiver.



Long Distance Transmitter.

Sumter Transmitter.

Diaphragm free to vibrate unhampered by mica diaphragms or other impediments.

Diaphragm is of hard drawn aluminum, non-corrosive, with soft rubber gasket.

Electrodes of imported carbon copper plated, soldered to brass backs, exposed surfaces highly polished.

Granular carbon of uniform size, highly polished. Diaphragm springs, rubber tipped, oil tempered steel.

Bridge of heavy sheet brass. Mica diaphragm is used to prevent entrance of moisture only and does not vibrate with main diaphragm and is not connected to it.

Strong and coarse threads for mouthpiece.



No. 11.

		Each.
No. 43.	Standard transmitter for local battery (magneto) telephones	$3.00
No. 43C.	Standard transmitter for common battery telephones,	3.00
,, 43S.	Special transmitter for common battery telephones	3.00
,, 35.	Standard transmitter arm	3.80
,, 33.	Arm with large base to cover coil	4.30
,, 37.	,, ,, 5 V. induction coil mounted in base and wired	5.00



No. 12 Transmitter.

C. & S. Transmitter.

No. 11.	Transmitter only unmounted and without coil, solid back	$2.50
No. 11S.	Same as No. 11 with attachments for switchboard use,	4.00
,, 11D.	,, ,, ,, ,, ,, back stud for desk stand	3.00
,, 12.	No. 11 transmitter mounted on concealed cord type of adjustable arm with induction coil in base	4.50
No. 13.	No. 11 transmitter mounted on concealed cord type of adjustable arm with flat base, no coil	3.50



No. 90.

No. 90 Transmitter.

A superior grade of low-priced transmitter equipped with long distance, self-contained granular carbon button with polished carbon electrode.

Furnished complete with bolts and nuts for attaching to woodwork, transmitter arms, etc. ..... each, $1.80



No. 13.

Sumter " Mason " Hook Switch.

Self-contained, lever may be removed without removing the escutcheon plate or disturbing contacts.

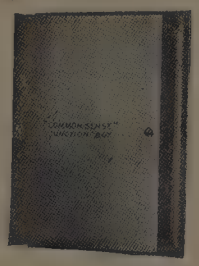
Springs always under tension, platinum contacts, hard rubber insulation.

Switch lever actuated by heavy flat spring not in current carrying circuit. Finish, nickel plated.



Sumter Hook Switch.

		Each.
No. 63.	Standard hook switch for series telephones,	$1.00
No. 63B.	Standard hook switch for bridging telephones ..... each,	1.00
No. 63C.	Standard hook switch for common battery telephones .... each,	1.00

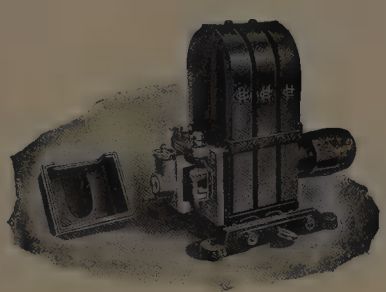




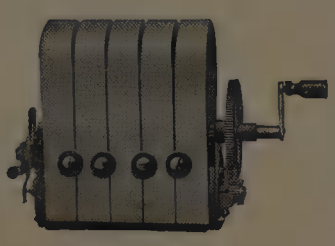
No. 630.



No. 38-200.



H.-C. Power Generator.



Sumter Generator.

TELEPHONES, Parts of (Continued).

"Common Sense" Junction Box.

A telephone cable junction box to prevent the taped splice in common use. Serves as a distribution box at which lines may be tested out. Removing or changing wires easily accomplished.

The enclosing box is of white wood shellaced, but other styles will be furnished to order.

For Common Return

	Stations.	Connector Strips.	Each.
No. 630	10	14	$4.50
,, 631	16	20	6.00
,, 632	20	24	7.50
,, 633	26	30	9.00
,, 634	30	34	10.50

For Twisted Pair.

	Stations.	Connector Strips.	Each.
No. 635	10	24	$7.50
,, 636	16	36	9.60
,, 637	20	44	12.00
,, 638	26	56	14.40
,, 639	30	64	16.80

H.-C. Magneto Generators.

Self-contained platinum pointed springs, for the automatic shunts and cut-ins, thus making it unnecessary to mount the contact springs on the sides of the magneto box.

Prices include automatic shunt or cut-in, as may be desired, screws, and washers for mounting, also crank handle.

		Each.
No. 37-200.	3-magnet generator	$4.18
,, 38-200.	4 ,, ,,	5.14
,, 39-290.	5 ,, ,,	6.20

H.-C. Power Generators, Type I.

Made in two sizes; 3- and 4-magnet, suitable for exchanges having 250 to 1,000 subscribers. Designed to deliver 80 volts at full load at a frequency of 1,000 cycles per minute, this corresponding to a speed of 1,000 R. P. M. in a two-pole field.

		Rev.	Watts.	Lbs. Wt.		
No. S-2530.	3-bar,	1,000–1,200	10	75	each,	$30.00
,, S-2531.	4 ,,	,,	15	75	,,	40.00
,, S-2532.	Pulsating current attachment, extra					15.00

NOTE. — We are prepared to furnish generators direct connected to either alternating or direct current motors. Prices on application.

For small exchanges we can furnish smaller powered generator in both three- and four-bar styles as follows:

No. 741-P.	3-bar generator, 4 watts ..... each,	$18.00
,, 742-P.	4 ,, ,, 5 ,, ... ,,	24.00

Sumter Magneto Generator.

Made from the highest grade of materials obtainable. Magnets are formed of $\frac{7}{8}$ x $\frac{1}{2}$ inch, or $\frac{3}{4}$-inch special imported magnet steel. Laminated armature. Bearings ground to one-half of one one-thousandth of an inch. Gear wheels of hard, tough brass. Pure German silver springs and best hard rubber insulation used.

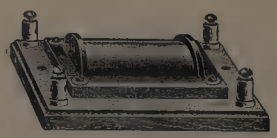
No. 600.	Standard 3-bar generator, to ring through 10,000 ohms	$5.00
No. 601.	Series 3-bar generator, to ring through 15,000 ohms	5.50
No. 602.	Series 3-bar generator, to ring through 20,000 ohms	6.00
No. 700.	Series 4-bar generator, to ring through 40,000 ohms	7.00

(*Continued on next page.*)

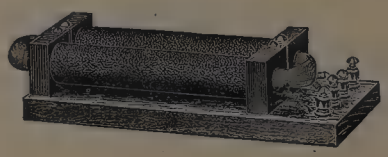
TELEPHONES, Parts of.



C. & S. Induction Coil.



C. & S. Repeating Coil.



C. & S. Retardation Coil.



No. 46.



No. 48.



No. 10.

Sumter Magneto Generator (Continued).

No. 800. Standard bridging generator, 4-bar, extra heavy current capacity, each magnet $\frac{7}{8}$ x $\frac{1}{2}$ in..... $7.00

No. 900. Commercial 5-bar generator, each magnet $\frac{5}{8}$ x $\frac{1}{2}$ in..... 7.50

No. 1000. Standard 5-bar "Mammoth" generator, each magnet $\frac{7}{8}$ x $\frac{1}{2}$ in., extra heavy current capacity..... 9.50

Sumter Induction Coils.

Highly efficient automatic wound coils, strictly uniform and thoroughly tested.

No. 5A. Local battery (magneto), silk insulated and hand wound coil...each, $1.00

No. 5V. Standard local battery (magneto) automatic wound coil.....each, .78

No. 5C. Standard common battery induction coil, primary 17, secondary 27 ohms.....each, 1.10

No. 5S. Special common battery induction coil, primary 10, secondary 10 ohms.....each, 1.00

No. 5D. Same as 5A, but adapted for mounting in bottom of desk stand..each, 1.00

No. 5CD. Same as 5C, but adapted for mounting in bottom of desk stand.each, 1.10

No. 5SD. Same as 5S, but adapted for mounting in bottom of desk stand..each, 1.00

C. & S. Induction Coil.

No. 250. Induction coil, 100 ohms.....each, $ .75

,, 250. ,, ,, 250 ,, ... ,, 1.00

C. & S. Repeating Coil.

No. 84. For grounded series to metallic series, $9.00

,, 84. For grounded series to metallic bridging..... 11.50

No. 84. For grounded bridging to metallic bridging..... 14.00

C. & S. Retardation Coil.

Made in two sizes. Mounted on wood base with binding posts.

No. 81. 6-ohm retardation coil.....each, $2.50

,, 81. 75 ,, ,, ,, ... ,, 3.50

Small Parts.

No. S-2540. Generator handles.....each, $ .50

,, S-2541. Hard rubber mouthpieces.... ,, .30

,, S-2542. Receiver caps..... ,, .30

C. & S. Telephone Switches and Pushes.

No. 46. Positive contact switch only.

10-line..... $1.90

15 ,, ... 2.60

20 ,, ... 3.30

25 ,, ... 5.00

30 ,, ... 6.00

No. 48. Automatic button switch, metallic circuit.

10-line..... $8.00

15 ,, ... 12.00

20 ,, ... 16.00

25 ,, ... 20.00

30 ,, ... 25.00

No. 10. Combination push button without mat.

2-button..... $ .50

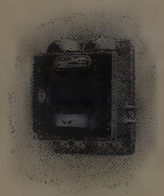
4 ,, ... .80

6 ,, ... 1.20

8 ,, ... 1.60

10 ,, ... 2.00

Oak mat, 10-button or less..... 1.00



Style E Relief Switch.



No. 1401.



No. 5-204.



No. 1-204.

TELEPHONES, Parts of (Continued).

Sumter Style E Relief Switch.

With this instrument a long line can be cut in half so that the two portions of that line can be used at one time. Or when there are two lines coming into the same place a relief switch can be installed so that one telephone can call up or be called by both lines, and if necessary the two lines can be connected together.

A standard switchboard key is mounted in such a manner that when thrown in one direction the telephone will be connected to one line, and the bell in the relief switch will be connected to the other line.

When the key is thrown in the other position the operation is reversed.

When the key is in the centre both lines are connected together.

It will be seen that at no time is either line cut off, but a bell is always connected to both lines, no matter what position the key may be in.

No. 10S.	Series 250-ohm ringer	$10.00
,, 100K.	Bridging 1000-ohm ringer	10.00
,, 120K.	,, 1200 ,, ,,	10.00
,, 150K.	,, 1500 ,, ,,	10.00
,, 160K.	,, 1600 ,, ,,	10.00
,, 200K.	,, 2000 ,, ,,	10.50
,, 250K.	,, 2500 ,, ,,	11.00

3-Point Push Button Key.

Self-contained and can easily be installed in telephone boxes and return call annunciators. Can also be supplied mounted on wood base or on other special mountings.

No. 1401. 3-point push button key.....each, $ .32

TELEPHONES, Special.

H.-C. " Watch-Case Receiver " Type. Lineman's Testing Set.

A receiver type of testing set embodying every feature needed for all classes of testing. It has alternating and also pulsating current. The ringer can be thrown in circuit or shunted out at will.

It has a push button in the receiver so that when not talking or listening it automatically opens the receiver circuit. This device obviates manual switches, keeps the magnets from being demagnetized by the alternating ringing current, and allows full current for ringing the bell instead of being partially shunted through the receiver. The set is substantially made and is as light as is consistent with the durability of the apparatus.

No.		Each.
5–204.	3-bar set, 6¾ x 5¾ x 6½ in., wt. 10½ lbs.	$ 18.00
6–204.	4 ,, ,, 6¾ x 5¾ x 6½ ,, ,, 11½ ,,	19.00

H.-C. " Universal " Type Lineman's Testing Set.

The most complete set now on the market for all classes of telephone line testing. Adapted for both series and bridging work. Has hand microtelephone of latest design. Fitted with carrying strap with snap catch. Generator gives A. C. and pulsating D. C. Ringer may be shunted out of circuit at will. Operation of set requires only one hand.

If this instrument is to be used for testing purposes, a ringer resistance of 1000 ohms is recommended and furnished unless otherwise designated. The generator and ringer are wired in series and a push button is mounted on the side of the box for cutting out the ringer.

No.		Each.
1–204.	3-bar set, 6½ x 5½ x 11 in., wt. 15 lbs.,	$29.00
2–204.	4 ,, ,, 6½ x 5½ x 11 ,, ,, 16 ,,	30.00

TELEPHONES, Special (Continued).



Watertight Telephone.

H.-C. Watertight Telephones.

Designed especially to meet the requirements of street railway service, but is adapted for use in mines or for any class of service which demands that the telephone be located in exposed places.

It is cheaper to install and maintain than an ordinary wall telephone in a booth.

It is absolutely watertight when the door is closed and weatherproof when it is open.

All coils are rendered moisture-proof by being treated with a highly insulating and moisture-proof compound.

Two receivers are provided, either or both of which may be used. They are of the cordless type and the flexible arms to which they are attached will support a pull of 200 pounds without strain on the connections.

The instrument is entirely cut off the line when the door is closed and no metal part carries current.

No. S-2560. 4-bar style $45.00
„ S-2561. 5 „ „ 50.00





Lima Jack Box and Plug, showing Ball sealing Hole after withdrawing Plug.

The Lima Jack Box.

For use in connection with railway telephone systems or other out-door service where it is desired to instantly connect portable or car telephones with the line wires.

The Lima Jack Box is most substantially constructed. The outer casing and the spring jack holder are made of cast iron. The spring jacks are made extra heavy to stand indefinite wear.

The cone-shaped mouth at the bottom instantly guides the plug into the spring jack. This cone-shaped mouth in conjunction with the outer casing forms a double petticoat which effectually sheds rain, snow, or sleet.

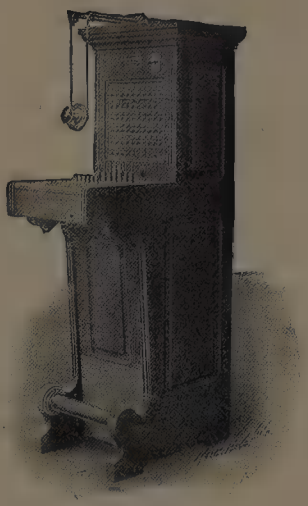
The Lima Jack Box is automatically closed by means of a metal ball which rolls into and closes the opening when the plug is withdrawn. This metal ball keeps out insects, dust, and moisture.

The insulation of the Lima Jack Box and plug is perfect. The spring jacks are securely mounted on a solid block of insulating material. Heavy insulating bushings carry the connections through the cast-iron holders. They are then joined to the weatherproof wires and are ready for connection to the line wires. The holder is insulated from the outer casing by a heavy insulating washer and another is placed between the holder and the lock washer at the bottom.

The Lima Jack Box Plug has a long handle and is so constructed as to leave no metal parts exposed when inserted in the box. As a further protection to the conductor and his instrument from a high voltage the plug is equipped with a fuse which will blow if a dangerous voltage should get through the box.

No. S-2570. Lima Jack box, wt. 5 lbs. . . . each, $4.00
„ S-2571. „ plug, wt. 1 lb. ..... „ 3.00

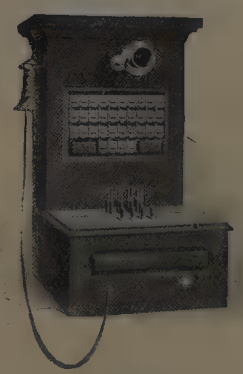
Ten feet of cord furnished with each plug.



No. 50 Cabinet.



No. 53 Cabinet.



No. 30 Switchboard.

TELEPHONE Switchboards.

Sumter Switchboards.

The Sumter unitype switchboards are superior to all others in workmanship, ease of operation, ease of repair, and accessibility.

No. 51.

The No. 51 (unit board) carries a panel of 100 drops, and if this size is not sufficient for the growth of the exchange another may be installed beside it, giving a capacity of 200 drops, etc. Four of these boards can be used in this manner, giving a capacity, without transfer, of 400 lines. Height, 64 inches; width, 15 inches; 10-cord circuit.

No. 52.

The No. 52 cabinet is of 200 lines capacity and is recommended for use in exchanges where the volume of business is not too great for one operator to handle. Two of these may be placed side by side, giving a capacity of 400 lines. Height, 64 inches; width, 25 inches; 20-cord circuits.

No. 53.

The No. 53 cabinet has two operator's positions, the line drops being located 100 per operator, sufficient space being provided in the centre panel for the installation of transfer apparatus for several thousand lines if necessary. If desired, the centre panel may be replaced with another bank of 100 drops changing the cabinet from 200 to 300 lines capacity. This form of cabinet is used by the largest exchanges. Height, 64 inches; width, 36 inches.

No. 50.

The No. 50 cabinet is designed for small exchanges of 50 drops or less, and is a standard switchboard in every respect. It is recommended for rural line and village exchange. Height, 56 inches; width, 15 inches; 6-cord circuits.

No. 30.

The No. 30 cabinet is a small table type of switchboard made of standard parts for small exchanges of not over 30 drops. This board is complete in every respect and is identical in construction and design with the larger cabinets: Height, 20 inches; width, 15 inches; depth, 23 inches; 4-cord circuits.

The above unitype switchboards may be purchased of any capacity — say 200, with only 15 or 20 drops installed. Additional drops may then be purchased as required and put in place by simply pushing them into the board, same as the plug.

All boards are furnished complete with cable from 6 to 10 feet long, extending from the top of the cabinet.

A hand generator is mounted on the terminal rack in rear of switchboard. It is accessible for examination at any time without disturbing the operator.

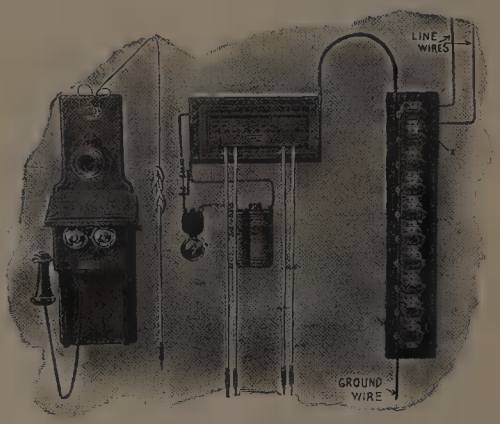
Terminals are provided for connecting power generator or pole changes, and a standard key switch is provided in all cabinets except No. 30, which cuts out the hand generator and substitutes the power generator when desired.

A receiver jack is provided for the operator's head receiver; when the plug is withdrawn the transmitter battery is cut off the board.

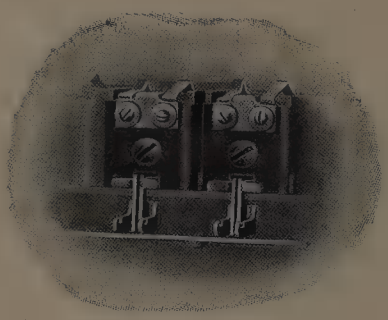
The transmitter (except on No. 30) is suspended on two cords and is adjustable up and down and in and out.

A "night-bell" circuit, which can be equipped with pilot lights, is furnished.

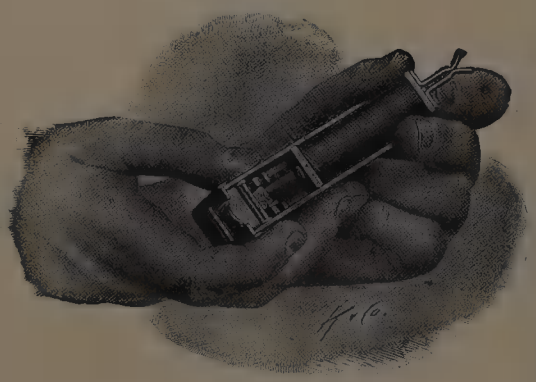
TELEPHONE Switchboards.



Showing Small Unitype Switchboard installed in Central Office.



Showing connection between Jack and Drop.



Removing Coil from Drop.

Sumter Switchboards (Continued).

All wiring is done with twisted pairs, each wire of a different color as far as practical. No acid used on soldered joints.

All cabling is boiled in bees' wax and thoroughly shellaced.

Woodwork is boiled in paraffine. Hard rubber is used for insulation for all vital parts.

The plugs are of brass with tip riveted on.

By removing the back board of cabinet all parts are instantly accessible.

All cabinets are equipped with 5 bar, $\frac{7}{8}$- x $\frac{1}{2}$-inch magnets, "Mammoth" heavy current capacity generators. Prices on application.

Small Unitype Switchboard.

The small Unitype switchboards have been designed to meet the demand for small exchange equipment of from 3 to 20 lines. All parts are same as used in the larger sets described above.

The 10-line size consists of one standard Unitype jack strip of 10 drops. It is wired for night bell, the bell, batteries, and switchboard being connected as shown.

Two-cord circuits are furnished with the 10-line board, complete with high wound clearing out drop, and three-cord circuits with the 20-line board.

Listening jack and operator's plug furnished, the latter to be connected direct to the binding posts of an ordinary telephone.

No. 10. Unitype cabinet for 10 bridging lines..... $70.00

No. 20. Unitype cabinet for 20 bridging lines..... 116.00

NOTE. — Any bridging telephone can be supplied for use with above, provided the ringers are of same resistance as those used on subscriber's lines. The "Five-fifty" style is recommended.

Strip of 10 No. 2000 arresters connected for use with above..... $15.50

Strip of 20 No. 2000 arresters connected for use with above..... 31.00

On lines equipped with a number of the ordinary type of bridging 'phones, when any 'phone calls another on the line, the drop at central falls. This is very annoying and a simple and inexpensive system has been devised whereby any 'phone on a line can call central without ringing any of the other 'phones on the line or can ring the other 'phones on the line without ringing central. 'Phones equipped for this service are called Class X 'phones and must be specified when ordering.

Any bridging 'phone can be equipped with push button for Class X service at.....each, $1.00

Unitype cabinets can be equipped for Class X service at.....each, 2.00

TELEPHONE **Switchboards** (Continued).



Showing ease of inserting New Drops.

Sumter Unitype Drops and Jacks.

The Unitype switchboard represents the highest development of magneto switchboard manufacture. It is the ideal equipment for the growing exchange in point of ease of operation, perfect service, and freedom from maintenance charges.

Each drop is a unit in itself, and as the drops are interchangeable a new drop may be put in place of an injured one by simply pushing it into place as shown in the cut as easily as inserting a plug.

The shutter weighs but a few grains and is automatically replaced by the plug when answering the call.

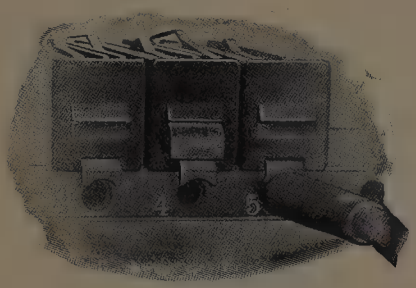
The coil may be removed by loosening one screw; no wires to unsolder.

The jacks are mounted on hard rubber strips and have German silver springs.

The plugs are of brass and steel with the tip riveted on. Insulation is protected by a ring of brass, so that jack springs cannot cut into insulation.

All numbers are on the jack strip so that drops may be interchanged at will.

Should no extra line drops be at hand in case of trouble, one of the clear-out drops may be withdrawn from its place and used as a line drop.



Unitype Drops and Jack.

		Each.
No. S-2575.	Unitype series drops.....	$2.50
,, S-2576.	,, bridging drops....	3.50
,, S-2577.	,, clearing-out drops,	3.50
,, S-2578.	,, jacks per strip of 10,	10.00
,, S-2579.	,, plugs.....	1.20
,, S-2580.	,, double conductor cords.....	1.00

Other parts on application.

Sumter Style C Ringer Boards.

For small junction points and farmers' lines this instrument offers a reliable and economical "central." Instead of using a drop, each line is provided with a bell in combination with a latch indicator, which falls when the bell rings and thus indicates which line is calling.

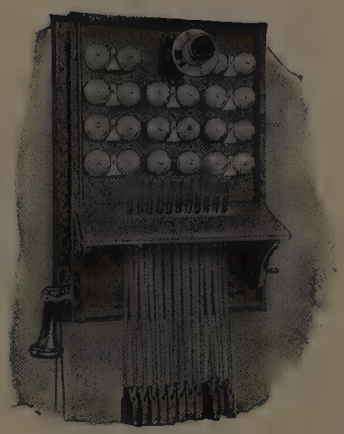
A plug and cord is connected with each line, so it is only necessary to use *one* plug to connect *two* lines, and the bell acts as a clearing-out signal.

All "calling up" and talking is done by central, with operator's plug, doing away with ringing cams, listening keys, etc.

The 10-line board is equipped with a complete operator's set, consisting of long-distance, solid back transmitter, polar receiver, platinum pointed switch hook, operator's induction coil, and mammoth 5-bar generator. Boards are wired full metallic, and can, therefore, be used on common return or grounded circuits without change by connecting all sleeve or white wires together and running them to common return or ground.

Can be furnished either series or bridging, but we recommend bridging.

State resistance of bells in telephones used, in ordering.



Style C. Ringer Board.

		Each.
No. 4CR.	4 lines style "C" ringer board,	$33.32
,, 6CR.	6 ,, ,, ,, ,,	46.66
,, 8CR.	8 ,, ,, ,, ,,	60.00
,, 10CR.	10 ,, ,, ,, ,,	92.22

TELEPHONE Switchboards (Continued).

C. & S. Telephone Annunciator Switchboards.

List prices given below are for switchboards fitted with indicators, jacks and operator's plug and cord, for answering or calling, also ringing button connections, drops and jacks cabled to Grip-Fast terminal connectors on backboard.

Operator's sets extra according to style.



Model Switchboard.



Gothic Switchboard.



Ionic Switchboard.

Model Style.	Single Circuit C. & S. Jack and Plug (wired for 1 Direct and 2 Common Wires).	Metallic Circuit C. & S. Jack and Plug (wired for 2 Direct and 1 Common or 3 Direct Wires).
6 drops, telephone annunciator	$21.00	$24.00
12 ,, ,, ,,	30.00	38.00
16 ,, ,, ,,	36.00	50.00
20 ,, ,, ,,	46.00	65.00
24 ,, ,, ,,	55.00	77.00
32 ,, ,, ,,	67.00	96.50
45 ,, ,, ,,	80.00	130.00
54 ,, ,, ,,	95.00	142.00
70 ,, ,, ,,	120.00	190.00
88 ,, ,, ,,	150.00	235.00
100 ,, ,, ,,	175.00	260.00
Gothic Style.		
24 drops, telephone annunciator	$60.00	$80.00
32 ,, ,, ,,	72.00	104.00
45 ,, ,, ,,	85.00	130.00
54 ,, ,, ,,	100.00	154.00
70 ,, ,, ,,	130.00	200.00
88 ,, ,, ,,	160.00	248.00
104 ,, ,, ,,	190.00	294.00
Doric Style.		
24 drops, telephone annunciator	$67.00	$91.00
32 ,, ,, ,,	81.00	113.00
45 ,, ,, ,,	106.00	151.00
54 ,, ,, ,,	127.00	181.00
70 ,, ,, ,,	162.00	232.00
88 ,, ,, ,,	190.00	278.00
104 ,, ,, ,,	220.00	324.00
Ionic Style.		
24 drops, telephone annunciator	$77.00	$100.00
32 ,, ,, ,,	95.00	135.00
45 ,, ,, ,,	125.00	170.00
54 ,, ,, ,,	140.00	195.00
70 ,, ,, ,,	175.00	240.00
88 ,, ,, ,,	210.00	300.00
104 ,, ,, ,,	240.00	350.00
NOTE.— Between sizes — use next larger case and deduct from list prices for drops — left out — each, $1.50		$2.50

Interconnecting Cord Pairs.

In addition to switchboard list prices:

Single circuit cross-connecting cord pairs and listening-in cam $9.00
(No supervisory signals.)

Metallic circuit cross-connecting cord pairs and listening-in cam 12.00
(No supervisory signals.)

Metallic circuit cross-connecting cord pairs with ringing and listening-in, keys and double supervisory signals 17.00

Operator's Set.

Style No. 1. Transmitter mounted on knuckle arm and receiver hook attached to case.... $10.00
Style No. 2. No. 26 wall type telephone 8.00
,, ,, 3. No. 14A desk set with 5-ft. green silk cord 17.00
,, ,, 4. No. 98 hand-microphone, 5-ft. cord, plug, and jack 17.00

TELEPHONE Switchboards.

C. & S. Telephone Annunciator Switchboards (Continued).

Fire Alarm Attachment.

Fire alarm attachment extra $20.00

Exchange Connection.

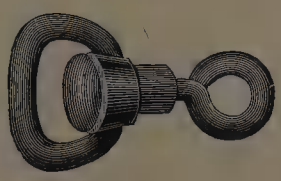
Either central energy or magneto equipment as specified $20.00

Jack Boards.

For connecting to old annunciators:

Single circuit jacks, answering cord and ringing key, 25-line $35.00
Single circuit jacks, answering cord and ringing key, 50-line 60.00
Single circuit jacks, answering cord and ringing key, 75-line 75.00
Single circuit jacks, answering cord and ringing key, 100-line 100.00
Metallic circuit jacks, answering cord and ringing key, 25-line 50.00
Metallic circuit jacks, answering cord and ringing key, 50-line 90.00
Metallic circuit jacks, answering cord and ringing key, 75-line 120.00
Metallic circuit jacks, answering cord and ringing key, 100-line 160.00

TELLTALE Floats (see F).
TELLTALE Indicator (see Boards, telltale).
TERMINAL Clamp (see C).
TERMINALS.



No. 36.

Heavy Terminals.

This insulator is constructed to stand heavy strains, and is used generally at trolley wire terminals.

No. 36. Bronze metal, with Ætna insulation, per 100, $200.00

Wire Terminals (Stamped).

Made from sheet copper with clips to fold over both the insulation of wire or cable. For gas engine work.

Shain Terminals.

	Length.	Diam. Head.	Bolt Hole.	Outside Diam. of Cable.	Per 1,000.
No. 0. Terminal...	1½ in.	⅝ in.	¼ in.	⅜ in.	$28.00
,, 1. ,, ...	1 7/16 ,,	9/16 ,,	¼ ,,	5/16 ,,	22.00
,, 2. ,, ...	1¼ ,,	½ ,,	3/16 ,,	¼ ,,	16.00
,, 2½. ,, ...	1⅛ ,,	9/16 ,,	¼ ,,	5/16 ,,	12.80
,, 3. ,, ...	15/16 ,,	½ ,,	3/16 ,,	3/16 ,,	9.00
,, 4. ,, ...	15/16 ,,	½ ,,	3/16 ,,	3/32 ,,	11.70

B. C. Terminals.

No. 0. Terminal....	1 in.	½ in.	3/16 in.	3/16 in.	$12.00
,, 1. ,, ...	1 9/16 ,,	11/16 ,,	¼ ,,	5/16 ,,	18.00
,, 3. ,, ...	1 9/16 ,,	11/16 ,,	¼ ,,	5/16 ,,	30.00
,, 4. ,, ...	1⅝ ,,	⅝ ,,	¼ ,,	½ ,,	30.00
,, 5. ,, ...	1⅝ ,,	⅝ ,,	¼ ,,	⅝ ,,	50.00



Shain Terminal.



B. C. Terminal.

Wire Terminals (Cast).

In ordering, state size of wire or cable to be used, and amperes of current, also size of hole for bolt or stud in flat end. State whether solid or stranded wire.

Round end furnished when so specified.

Single Terminals.

No. 41379.	⅛ wire hole,	¼ bolt hole,	each, $ .08
,, 41380.	2/16 ,,	¼ ,, ,,	.09
,, 41381.	¼ ,,	¼ ,, ,,	.11
,, 41382.	⅜ ,,	¼ ,, ,,	.19
,, 41383.	½ ,,	11/32 ,, ,,	.39
,, 41384.	5/8 ,,	11/32 ,, ,,	.58
,, 41385.	¾ ,,	9/16 ,, ,,	.78
,, 41386. 1	,,	9/16 ,, ,,	1.17
,, 41387. 1¼	,,	9/16 ,, ,,	1.55
,, 41388. 1½	,,	9/16 ,, ,,	2.35
,, 41389. 1¾	,,	2 holes, 9/16 ,, ,,	3.12
,, 41390. 2	,,	2 ,, 9/16 ,, ,,	3.90

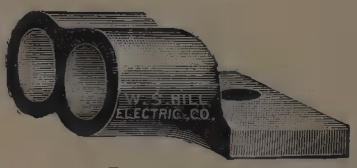


Single Terminal.

TERMINALS.

Wire Terminals (Cast) (Continued).

Twin Terminals.



Twin Terminal.

Right angle terminals and terminals of 45 degrees. Use list price for twin wire terminals.

No. 41391.	$\frac{1}{8}$	wire hole,		$\frac{1}{4}$ bolt hole, each,	$ .14
,, 41392.	$\frac{3}{16}$	,,		$\frac{1}{4}$,, ,,	.18
,, 41393.	$\frac{1}{4}$	,,		$\frac{1}{4}$,, ,,	.10
,, 41394.	$\frac{3}{8}$	,,		$\frac{9}{16}$,, ,,	.32
,, 41395.	$\frac{1}{2}$	,,		$\frac{9}{16}$,, ,,	.59
,, 41396.	$\frac{5}{8}$	,,		$\frac{9}{16}$,, ,,	.88
,, 41397.	$\frac{3}{4}$	,,		$\frac{9}{16}$,, ,,	1.17
,, 41398.	1	,,	2 holes,	$\frac{9}{16}$,, ,,	1.75
,, 41399.	$1\frac{1}{4}$	,,	2 ,,	$\frac{9}{16}$,, ,,	2.34
,, 41400.	$1\frac{1}{2}$	,,	4 ,,	$\frac{9}{16}$,, ,,	3.50
,, 41401.	$1\frac{3}{4}$	,,	4 ,,	$\frac{9}{16}$,, ,,	4.68
,, 41402.	2	,,	4 ,,	$\frac{9}{16}$,, ,,	5.85

TESTER, Bond.

Roller D. R. Type Bond Tester.
(Direct reading.)


Roller Bond Tester.

Size of instrument, $5\frac{1}{4}$ x $8\frac{1}{4}$ x $7\frac{1}{2}$ inches. Net weight about 6 pounds.

This instrument, shown in perspective serves for the rapid and accurate measurement of the resistance of rail bonds. The device itself is suspended about the neck of the observer by means of the strap shown, the folded down cover bracing it against the body and holding it in an approximately horizontal position. An inverted T-shaped contact bar, one of which accompanies each meter, is placed on the rail under test with the aid of its vertical handle, and by standing on the horizontal member thereof an excellent contact with the rail is assured. Appropriate flexible cords make connection between the bar and the instrument. In use, the bar with its three contact points is placed on the rail so that the two more closely adjacent ones span the joint under test. The needle, the end of which projects up through the scale, thereupon deflects and may be brought back to its initial zero position by turning the central hard rubber button. The resistance of the bond under test is then given directly on the graduated scale in terms of the number of feet of solid rail which would have the same resistance. If actual resistances are not required, the same instrument shows at a glance, and without any manipulation, whether a given bond is above or below any selected standard resistance. The apparatus is light, accurate, durable, and quick to operate, and has given universal satisfaction.

No. 789. Standard D. R. bond tester $80.00

TESTER, Coil.

Livesey Coil Tester.


No. S-2590.

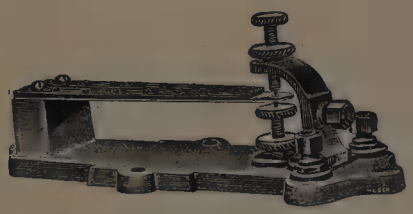
This instrument enables the operator to detect defective coils without the aid of any external current, as it is entirely self-contained. It has the advantage over similar devices in that it is not necessary to have a new field for comparison, though same may be used if desired. The tester is quick and accurate in operation, works equally well with fields in or out of motor case and can be handled by unskilled labor. It is put up in a strong case so as to withstand rough handling.

No. S-2590. Livesey coil tester ..... each, $150.00

TESTING Magneto (see M).
TESTING Set (see Bridge).
THAWING Outfit (see O).
THEATRE Curling Iron Heater (see Heater).
THEATRE Dimmer (see D).
THEATRE Plug and Receptacle (see R).



Testing Thermometer.



Improved Adjustable Thermostat.



Automatic Thermostat.



Thimble for Wire Rope.



Bemus Timer.

THERMOMETERS.

Dynamo Testing Thermometers.

Testing thermometers for taking temperature of field and armature coils, commutators, etc., under test, etched on glass, 0° to 100° C. (=212° F.). No. S-2595. Testing thermometers ..... each, $2.00

THERMOSTATS.

Improved Adjustable Thermostat.

These instruments can be set for any desired degree of heat or cold, and will make electrical contact on the rise or fall of temperature.

Call bells or other electrical apparatus can be connected in the circuit at any desired distance from the instrument. Used for fire-alarms, hot-houses, incubators, and many other places where uniform temperature is required.

No. 1673. Adjustable thermostat, each, $3.00

Automatic Fire-Alarm Thermostat.

This thermostat is adjusted to any degree of heat, but when not otherwise ordered is set at 125° =F.

Operates on rise of temperature only.

No. 1653. Automatic thermostat, each, $1.00

THIMBLES, Cord (see Trimmings, car).

THIMBLES, Rope.

Wire Rope Thimbles (Galvanized) No. S-2598.

	Per Doz.		Per Doz.
$\frac{1}{4}$ in.....	$ .84	$\frac{3}{4}$ in.....	$1.80
$\frac{5}{16}$,, ...	.96	$\frac{7}{8}$,, ...	1.92
$\frac{3}{8}$,, ...	1.08	1 ,, ...	2.40
$\frac{7}{16}$,, ...	1.20	$1\frac{1}{8}$,, ...	3.00
$\frac{1}{2}$,, ...	1.32	$1\frac{1}{4}$,, ...	3.96
$\frac{9}{16}$,, ...	1.44	$1\frac{3}{8}$,, ...	5.04
$\frac{5}{8}$,, ...	1.56	$1\frac{1}{2}$,, ...	6.00

THIRD Rail Insulator (see I).

TICKET Punches (see P).

TIE Rods (see R).

TIES, Railroad.

We are prepared to quote prices on chestnut ties or any style desired on application. State destination, size, and number.

TIGHTENER, Howe's Wire (see Vises, Come-alongs, etc.).

TIMERS and Distributers.

Bemus Timers and Distributers.

Timer.

An accurate timer, $2\frac{1}{4}$ inches diameter of cover plate (fibre) and $2\frac{1}{4}$ inches long over all, easily accessible, made of phosphor bronze and hardened steel, durable, adjustable, and simple. The steel ball contacts are easily renewable by simply unscrewing the ball retainer, removing a small spiral spring and inserting new balls.

The contact is one ball against another, the best possible.



Bemus Distributer.



Altemus "De Luxe" Model Timer.



Altemus Distributer.



Splitdorf Timer.

TIMERS and Distributers.

Bemus Timers and Distributers (Continued).

Distributer.

This distributer does away with all spark coils, save one. A great improvement over the timer and coil system, in that accurate timing of the spark is assured; if you have two or more coils there is always a slight difference in the speed of the current through them.

A glass disc (readily removable) exposes all working parts. Secondary current flows only when primary contacts are made. Short circuiting is impossible.

In ordering state size of cam shaft and number of cylinders.

	No. S-2600 Timer Only	No. S-2601 Timer & Dist.
For 1-cylinder motor..	$6.50	
,, 2 ,, ,, ..	7.00	$16.00
,, 3 ,, ,, ..	7.50	17.00
,, 4 ,, ,, ..	8.00	18.00
,, 6 ,, ,, ..	10.00	24.00
,, 8 ,, ,, ..	14.00	30.00

Altemus "De Luxe" Model Timer No. S-2610.

The body is made of non-corrosive aluminum composition metal, highly plated. Contact is of the roller type, composed of best grade tool steel; fibre insulation specially prepared from selected stock; general design and appearance readily seen in the accompanying illustration.

1-cylinder timer.....	each,	$12.00
2 ,, ,, ...	,,	13.00
3 ,, ,, ...	,,	14.00
4 ,, ,, ...	,,	15.00

Altemus Distributer No. S-2611.

Contact is obtained by means of a series of chrome steel rolls, corresponding with the number of cylinders to be fired, and a tool steel plunger. The duration of contact may be varied to suit engine speed.

Bodies are of hard rubber with solid brass backs, with a rear bearing 1 inch long. Forward bearing is also 1 inch long, insuring even running. Primary and secondary current are completely insulated. Primary compartment may be packed with grease.

2-cylinder distributer....	each,	$10.00
3 ,, ,, ...	,,	12.00
4 ,, ,, ...	,,	15.00
6 ,, ,, ...	,,	30.00
8 ,, ,, ...	,,	35.00

Splitdorf Timer No. S-2615.

The spindle carrying the hardened steel plunger contact revolves upon steel balls in steel cones; gives a perfect contact and prevents "freezing" in case of neglect in oiling. The contact points are hardened steel plates.

1-cylinder timer.....	each,	$12.00
2 ,, ,, ...	,,	13.00
3 ,, ,, ...	,,	14.00
4 ,, ,, ...	,,	15.00



Cord Tips. Detachable Tip.



Conrad's Plug Tongs.



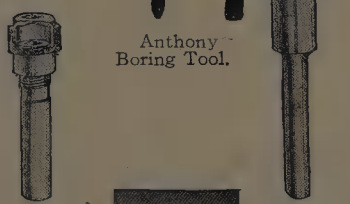
Cap and Cone Tongs.



Track Tongs.



Anthony Boring Tool.



Balz Chuck. Anthony Chuck.



No. 5770.



No. 16. Electric Top. Pole Top.

TIN Foil (see F).
TIN Shades (see Shades and Reflectors).
TIPS, Cord.

Copper Cord Tips.

No. S-2620. Copper tips for confining the ends of standard wires in sockets, etc., per box of 250 ..... $ .50

Detachable Cord Tips.

No. S-2625. These tips require no soldering; per doz..... .90

TIPS, Lava (see Burners).
TOASTER (see Broilers).
TOGGLE Bolts (see B).
TONGS, Plug.

Conrad's Plug Tongs.

Tested to 23,000 volts. A perfect protection to the lineman who has to re-fuse high voltage cut-outs. Highly recommended by leading electric light companies.

No. H-2625. Conrad's plug tongs .....per pr., $3.50

TONGS, Suspension.

G. E. Suspension Tongs.

For use in installing the G. E. cap and cone suspensions.

No. 19457. Tongs.....each, $1.45

TONGS, Track.

Track Tongs.

Weight approximately, 15 pounds.

No. 459. Track tongs .....per lb., $ .15

TOOL Bag (see B).
TOOL Belt (see B).
TOOL, Boring (see Machine, boring).

Anthony Boring Tool.

Made to take round shank machine bits. Chucks for square shank bits extra.

		Each.
No. S-2630.	Boring tool.....	$5.00
,, S-2631.	Anthony chuck for square shank bits,	.50
,, S-2632.	Balz chuck for square shank bits....	1.50

TOOL, Howe's Wire (see Vises).
TOOL Kit (see K).
TOOLS (see Come-alongs, Tongs, Axes, Hatchets, Hammers, etc.).
TOOLS, Meter (see Seals).

Meter Tools.

No. 5770. Complete pocket set of meter adjustment tools in case. Includes jewel wrench, pivot wrench, top bearing and brush stud wrench, brush and magnet cleaners, magazine screwdriver, level, etc..... $6.50

TOP, Electric.

Electric Top.

This top will spin for hours at a high speed. By using the color changing discs, beautiful illusions may be produced, which are instructive as well as amusing. It is also a perfect running electric motor, and can be used as such to run small mechanical toys with a belt from grooved pulley on shaft. It is operated by one cell dry or other battery; finished in red enamel, with polished nickel trimmings, and furnished with four color discs.

No. 16. Top, complete without battery.....each, $ .75

TOP, Pole (see Poles, Brackets, pole and wall, etc.).

Iron Pole Top.

These tops are made to slip over the top of iron poles to give a finish and shed moisture, etc.

No. 1154.	For	3-inch	pipe.....	each,	$ .72
,, 1155.	,,	4 ,,	,, ...	,,	.89
,, 1156.	,,	4½ ,,	,, ...	,,	1.10
,, 1157.	,,	5 ,,	,, ...	,,	1.20
,, 1158.	,,	6 ,,	,, ...	,,	1.37
,, 1159.	,,	7 ,,	,, ...	,,	1.65



Alcohol Blow-Lamp.



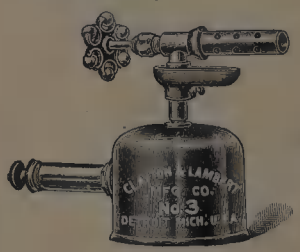
No. 2.



No. 1.



No. 6.



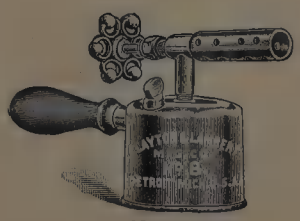
No. 3.



No. 7.



No. 9.



No. 8.



No. 10.



No. 11.



No. 12.

TORCHES and Fire Pots.

Alcohol Blow Lamps.

A small hand torch in which the flame is thrown out horizontally by air pressure automatically.

No. 1. Blow lamp..... each, $1.50
,, 2. ,, ,, ... ,, 2.00
,, 3. ,, ,, ... ,, 2.50
,, 4. ,, ,, ... ,, 3.33

Clayton & Lambert Torches.

	Net. Each.
No. 1. Torch, capacity 1 quart, brass air pump and latest improved flat burner swivelled to throw flame in any direction. Shipping weight, 5½ lbs. each; finish, polished brass .	$4.25
No. 2. Torch, capacity 1 quart, round burner with great generating power, light weight. Shipping weight, 5 lbs., finish, polished brass.....	3.75
No. 3. Torch, capacity ½ pint; brass air pump forms part of handle, round burner. Shipping weight, 1¾ lbs.; finish, polished brass.....	3.00
No. 6. Torch, capacity 1 quart, same as No. 2, except that it has a hook and support for holding soldering coppers. Shipping weight, 5¼ lbs.; finish, polished brass	4.00
No. 7. Torch, capacity 1 pint, brass air pump, round burner. Shipping weight, 3½ lbs.; finish, polished brass.....	3.25
No. 8. Torch, capacity ½ pint, has no pump, but depends on air pressure, due to heat. Shipping weight, 2 lbs.; finish, polished brass.....	3.00
No. 9. Torch, capacity 1 pint, like No. 7, except that it is fitted with a hook and support. Shipping weight, 3¼ lbs.; finish, polished brass.....	3.50
No. 10. Torch, capacity ¼ pint, a blowpipe or alcohol torch. Cap screws down tight over wick when not in use. Blowpipe has threaded nut to adjust height. Size, 1¾ x 6 inches; shipping weight, 1 lb.; finish, polished brass	1.50
Nickeled.....	1.60
No. 11. Torch, capacity ⅛ pint, is exactly the same as No. 10, except that it is smaller, being ⅞ x 6 inches. Shipping weight, ¼ lb.; finish, polished brass	1.25
No. 12. Torch, capacity ⅛ pint, burns either gasoline or alcohol. Air blast is passed through a chamber charged with gasoline or alcohol gas, making a strong flame. Size, ⅞ x 6 inches; shipping weight, ¼ lb.; finish, polished brass.....	1.25



No. 16.



No. 17.



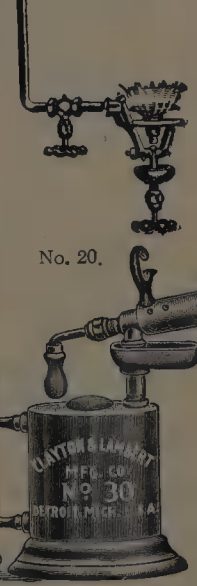
No. 18.



No. 14.



No. 19.



No. 20.



No. 29.

No. 30.



No. 31.



No. 32.

TORCHES and Fire Pots.

Clayton & Lambert Torches (Continued).

No. 14. Torch, capacity ¼ pint, same principle as No. 12, but 1¾ x 6½ inches. Shipping weight, 1 lb. each; finish, polished brass ..... Net, Each. $1.75

No. 16. Torch, capacity 1 quart; has pump in handle. Shipping weight, 5 lbs.; finish, polished brass..... 3.50

No. 17. Torch, capacity 1 quart, same as No. 16, with addition of hook and support. Shipping weight, 5¼ lbs.; finish, polished brass..... 3.75

No. 18. Torch, capacity 1 pint, has pump in handle; improved double shouldered needles in burners. Shipping weight, 3½ lbs.; finish, polished brass..... 3.00

No. 19. Torch, capacity 1 pint, same as No. 18, with addition of hook and support. Shipping weight, 3¾ lbs.; finish, polished brass..... 3.25

No. 20. Torch, capacity 1 gallon, used for lighting purposes on construction work, etc., giving a light equal to 10 gas lights, at a cost of less than a cent an hour. Will work in a wind. Shipping weight 5 lbs., each, 1.50

No. 29. Torch, capacity 1 quart, brass pump in handle. Shipping weight, 4½ lbs.; finish, polished brass..... 3.25

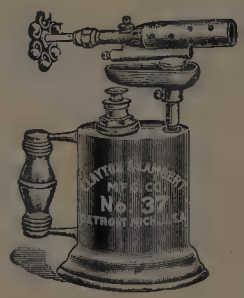
No. 30. Torch, capacity 1 quart, same as No. 29, with addition of hook and support. Shipping weight, 4¾ lbs.; finish, polished brass 3.50

No. 31. Torch, capacity 1 quart, burner is a powerful generator, for work in the wind. Shipping weight, 5 lbs.; finish, polished brass..... 3.75

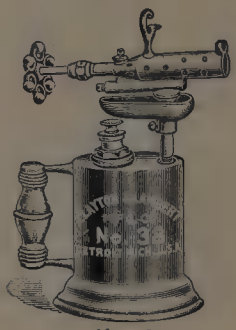
No. 32. Torch, capacity 1 quart, same as No. 31, with addition of hook and support. Shipping weight, 5 lbs.; finish, polished brass 4.00



No. 33.



No. 37.



No 38.



No. 39.



No. 40.



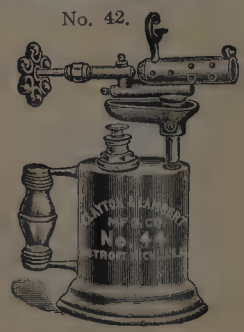
No. 41.



No. 42.



No. 43.



No. 44.

TORCHES and Fire Pots.

Clayton & Lambert Torches
(Continued).

Net, Each.

No. 33. Torch, capacity ½ pint, for light work on inside wiring. Small blue flame, swivel burner.
Shipping weight, 1¼ lbs.; finish, polished brass..... $3.00

No. 37. Torch, capacity 1 pint, has strong generator producing blue needle point flame, not affected by wind.
Shipping weight, 3½ lbs.; finish, polished brass..... 3.25

No. 38. Torch, capacity 1 pint, same as No. 37, except that burner is fitted with hook and support.
Shipping weight 3¾ lbs.; finish, polished brass..... 3.50

No. 39. Torch, capacity 1 quart, fitted with best automatic pump and strong generator.
Shipping weight, 5 lbs.; finish, polished brass..... 3.75

No. 40. Torch, capacity 1 quart, same as No. 39, with hook and support for coppers.
Shipping weight, 5½ lbs.; finish, polished brass..... 4.00

No. 41. Torch, capacity 1 quart, with pump in handle; powerful blue blast flame.
Shipping weight, 5 lbs.; finish, polished brass....., 3.50

No. 42. Torch, capacity 1 quart, same as No. 41, with addition of hook and support for coppers.
Shipping weight, 5¼ lbs.; finish, polished brass..... 3.75

No. 43. Torch, capacity 1 pint, with best automatic pump; burner a strong generator.
Shipping weight, 4 lbs.; finish, polished brass..... 3.25

No. 44. Torch, capacity 1 pint, same as No. 43, with addition of hook and support for coppers.
Shipping weight, 4 lbs.; finish, polished brass..... 3.50



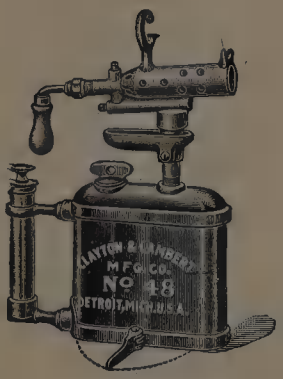
No. 45.



No. 46.



No. 47.



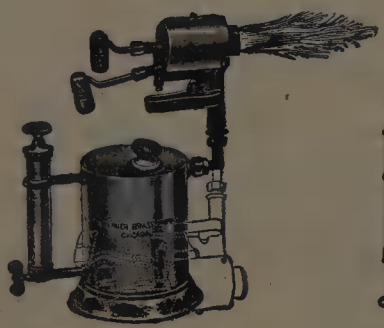
No. 48.



No. 21.



No. 3.



No. 96.



No. 70.

TORCHES and Fire Pots.

Clayton & Lambert Torches
(Continued).

Net, Each.

No. 45. Torch, capacity 1 pint, with automatic pump in handle.
Shipping weight, 3¾ lbs.; finish, polished brass..... $3.25

No. 46. Torch, capacity 1 pint, same as No. 45, with hook and support for coppers.
Shipping weight, 4 lbs.; finish, polished brass..... 3.50

No. 47. Torch, capacity 1 pint, especially designed for automobile users. Light weight, oblong-shaped tank 1⅞ in. thick by 5 in. long, 8 in. high. Provided with hinged supports to prevent tipping over when left standing.
Shipping weight, 4⅝ lbs.; finish, polished brass..... 3.75

No. 48. Torch, capacity 1 pint, same as No. 47, with addition of hook and support for coppers.
Shipping weight, 5¼ lbs.; finish, polished brass..... 4.00

White's Torches.

No. 3 Reliance Hot-Blast Torch.

Equipped with latest improved burner with automatic brass pump in tank. Tank made of 18 gauge, seamless brass, highly polished and finished, with concave steel bottom. A tool appreciated by electricians, gas fitters, plumbers, etc. Satisfaction guaranteed.
Capacity, one quart.
Weight, 3 lbs.....net, each, $4.00

No. 21. Combination Hot-Blast Torch.

This torch is constructed on the new patented coil principle, vaporizing all the gasoline above the tank. Will work in wind or zero weather. Tank made of 18 gauge, seamless brass, highly polished; concave steel bottom. Best for soldering copper.
Capacity, one quart.
Weight, 3¼ lbs.....net, each, $5.50

Turner No. 96, Double Jet Torch.

This torch generates the maximum amount of heat possible to be obtained by mechanical means. Produces about 3000° F. or nearly double the capacity of single jet burners. Burners furnished with wind shield which makes this an ideal tool for heavy out-door work in windy or stormy weather. Tank made of 18 gauge brass, highly polished. Guaranteed to please.
Capacity, one quart.
Weight, 3½ lbs.....net, each, $8.50

No. 70. Cinch Combination Hot-Blast Torch.

A quart torch that is a leader. New improved burner, with soldering iron attachment. Tank made of 18 gauge, seamless brass, highly polished, with pump in handle. Concave steel bottom.
Capacity, one quart.
Weight, 3 lbs.....net, each, $4.00

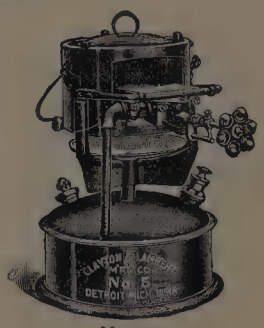


No. 92.

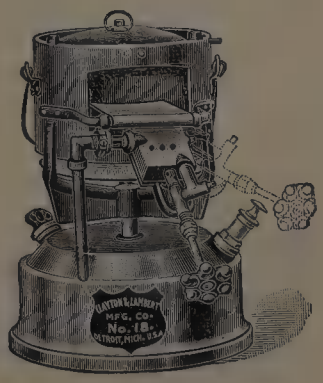
No. 23.



No. 1.



No. 5.



No. 18.



No. 10.

TORCHES and Fire Pots.

White's Torches
(Continued).

No. 23. Electric Hot-Blast Torch.

This pint torch has a world-wide reputation, having stood the test for years, growing daily in popularity. The generator is made on a new correct principle, producing a solid blue flame of 1500° F. Tank made of 18 gauge seamless brass, highly polished, with concave steel bottom.

Capacity, one pint.

Weight, 2 lbs.....net, each, $3.50

Turner No. 92, Double Jet Torch.

The Turner double jet burner on this torch is capable of doing work in nearly half the time of the single jet type. Unexcelled for light brazing, annealing, etc. Tank made of 18 gauge, seamless brass, highly polished.

Capacity, one quart.

Weight, 3 lbs.....net, each, $6.75

Clayton & Lambert's Fire Pots.

No. 1. Fire pot is light, strong, and capable of bearing hard usage. The tank is made of heavy galvanized iron (or of brass if preferred). Removing the top section exposes an open fire which may be used as a torch or brazing fire.

Capacity, 7 pints.

Shipping weight, 14 lbs.....net, each, $6.00

No. 5. Fire pot has all the good points of the No. 1 pot but is about one-third smaller in size. Is a convenient size for taking out on jobs. Has removable top.

Capacity, 5 pints.

Shipping weight, 12 lbs.....net, each, $4.50

No. 10. Fire pot has a powerful generator giving an intensely hot blue flame. Heavy galvanized tank with galvanized iron bottom ring. Coil is of extra heavy pipe and burner is of steel. Valves are fitted with needle points which give the user perfect control of the fire and are always tight. Rubber bulb pump.

Shipping weight, 13 lbs. Capacity, 1 gallon.

With large shield .....net, each, $3.75

With both shields..... ,, 4.00

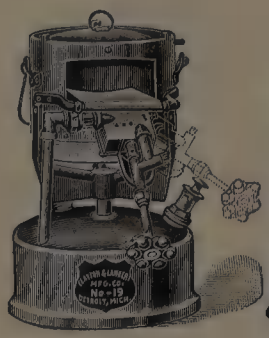
No. 18. Coil fire pot has brass tank of 18 gauge brass or heavy galvanized iron (regular) whichever the buyer prefers. Top section so arranged that a kettle of metal or a pair of coppers may be heated at the same time. Removing top gives open fire.

Capacity, 1 gal.

Shipping weight, 14 lbs. ....net, each, $6.00

TORCHES and Fire Pots.

Clayton & Lambert's Fire Pots (Continued).



No. 19.



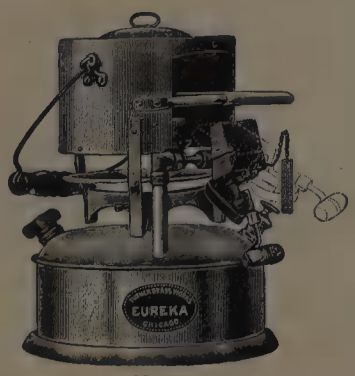
No. 20.

No. 19. Fire pot is the same as the No. 18 pot except that it is smaller, the capacity being 3 quarts.
Shipping weight, 12 lbs..... net, each, $4.50

No. 20. Coil fire pot is exactly like No. 10 except that it is fitted with automatic brass air pump which is more durable than bulbs and enables the user to use more air, thereby producing a blue blast flame that is intensely hot. Capacity, 1 gallon.
Shipping weight, 13 lbs. each.

With large shield only.....net, each, $4.00
With both shields..... ,, 4.25

White's Furnaces.



No. 6.

No. 6. Turner Eureka Gasoline Furnace.

The most unique furnace made. By a single adjustment the flame becomes noiseless. Another change in adjustment and a bright illuminating flame is produced. Good detachable burner, swivelled. Will heat a pair of coppers and melt a pot of lead at same time. Tank made of heavy galvanized iron.
Capacity, one gallon.
Weight, 9½ lbs.....net, each, $9.00

No. 34. Bonanza Hot-Blast Furnace.

An excellent furnace for plumbers, tinners, and roofers. Tank made of heavy galvanized iron. Hood detachable, burner swivelled. Will melt a pot of lead and heat a pair of soldering coppers at same time. Will work in wind and weather.
Capacity, one gallon.
Weight, 9½ lbs.....net, each, $9.00

No. 36. Bonanza Hot-Blast Furnace.

Same as No. 34 except one size smaller.
Capacity, three quarts.
Weight, 9 lbs.....net, each, $7.75

TOW Car Connector (see Connector, trailer).

TRACK Bolts (see B).

TRACK Brooms (see B).

TRACK Brush Holder (see H).

TRACK Cleaners (see Scrapers).

TRACK Gauge (see G).

TRACK Level (see L).

TRAILER Connector (see C).



No. 34.

TRANSFORMERS (see Generators, secondary).

Fort Wayne Transformers, Type A.

Low operating temperature, high insulation strength and vacuum treated coils, subdivided coils, only best insulating materials used.

All standard Type A transformers are designed with interchangeable primaries for 1,100 or 2,200 volts. One complete line of 110 or 220 secondary voltages is furnished which may be used for three-wire service.

A second line of small sizes is also furnished but is not intended for three-wire service.

These transformers will operate on 60-cycle, 1,100 or 2,200 volt circuits, but will operate equally as well on higher frequencies and on voltages not over 10 per cent from 1,100 or 2,200.

Catalogue numbers include oil, hanger irons, and single-pole porcelain fuse boxes.

TRANSFORMERS.



Type A. Transformer.

Fort Wayne Transformers, Type A (Continued).

Primary 1,100–2,200 Volts; Secondary, 55–110 Volts.

Cat.	Watts. Cap.	Qts. Oil Req.	Sh. Wt. with Hooks & Oil.	50-Watt Lamp Cap.	List Price.
No. 87319	600	2	94	12	$41.00
,, 87320	1000	3	130	20	44.00
,, 87321	1500	4	150	30	57.00
,, 87322	2000	5½	191	40	66.00
,, 87323	2500	6	220	50	74.00

Primary 1,100–2,200 Volts; Secondary, 110–220 Volts.

No. 87324	600	2	94	12	$41.00
,, 87325	1000	3	130	20	44.00
,, 87326	1500	4	150	30	57.00
,, 87327	2000	5½	191	40	66.00
,, 87328	2500	6	220	50	74.00
,, 87329	3000	8	264	60	84.00
,, 87330	4000	9	287	80	99.00
,, 87331	5000	11	340	100	114.00
,, 87332	7500	16	500	150	153.00
,, 87333	10000	18	542	200	197.00
,, 87334	15000	24	763	300	267.00
,, 87335	20000	36	920	400	326.00
,, 87336	25000	44	1140	500	395.00
,, 87337	30000	66	1400	600	444.00
,, 87338	40000	72	1660	800	563.00
,, 87339	50000	84	2025	1000	672.00

TRANSMITTERS (see Telephones).

TRANSPOSITION Insulator (see Insulators, glass).

TRAVELLER'S Stove (See Stoves).

TRAYS (see Dish, chafing).

TREAD, Floor.

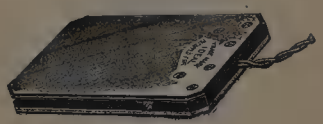


Daisy Floor Tread.

Daisy Floor Tread.

To be used under the rug, attached to a flexible cord so that it may be moved from place to place on floor as table is moved or extended. A slight pressure on any or all of the arms makes the contact instantly.

No. S-2650. Daisy floor tread.....each, $1.25



Renim Floor Tread.

Renim Ideal Floor Tread.

Made for same purpose as the above and of strength sufficient to stand the weight of a heavy table rolling over it. Felt on bottom to prevent marring highly finished floor.

No. S-2655. Ideal floor tread.....each, $1.50

TREE Insulators (see I).

TREE Trimmers.



Tree Trimmers.

Tree Trimmers or Pruners.

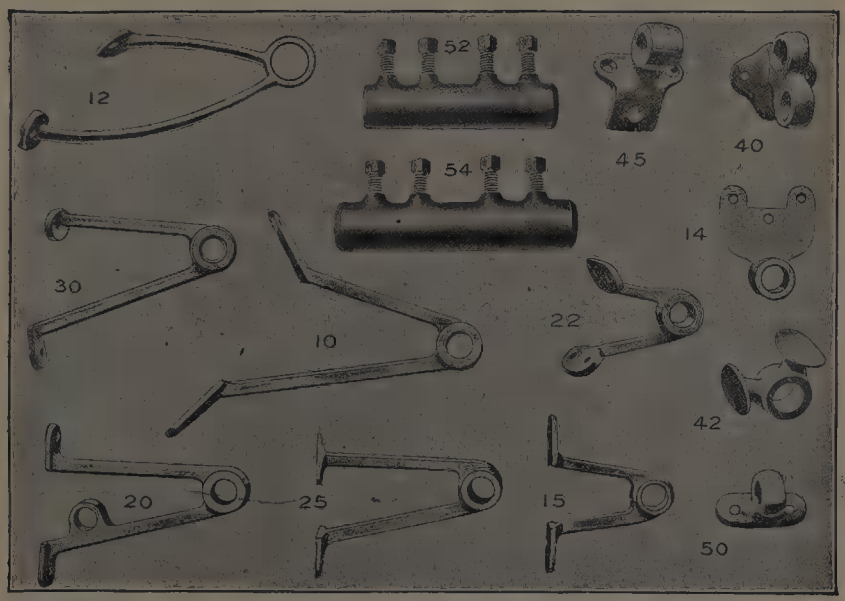
No.		Approximate Weight.	Per Doz.
867.	Tree trimmer, no handle.....	40 lbs.	$48.00
868.	,, ,, 12 ft. handle.....	90 ,,	64.80
869.	,, ,, 14 ,, ,, ...105	,,	69.60
870.	,, ,, 16 ,, ,, ...115	,,	76.80
871.	,, ,, 18 ,, ,, ...125	,,	86.40

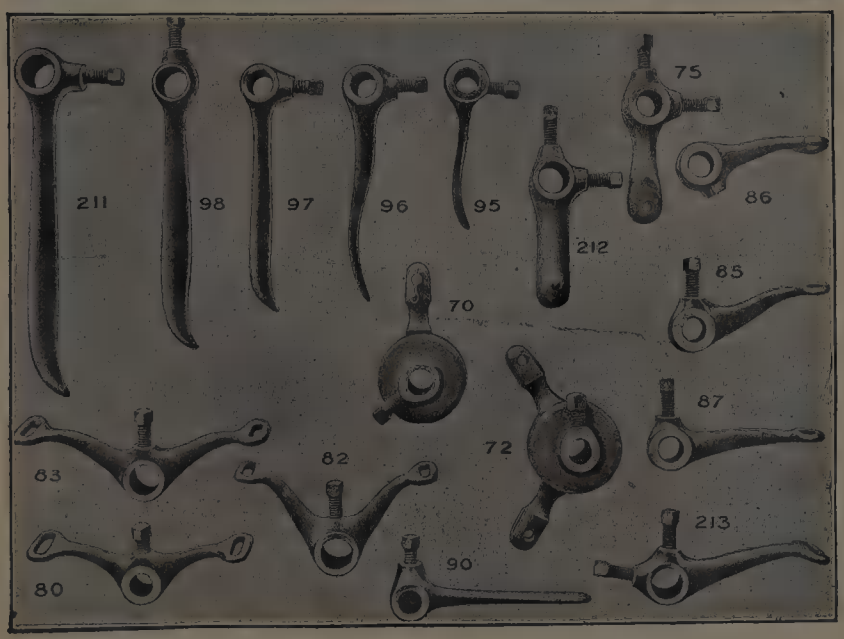
No.		Approximate Weight.	Per Doz.
872.	Tree trimmer and saw, no handle...	41 lbs.	$64.80
873.	,, ,, ,, ,, 12 ft. handle	100 ,,	83.04
874.	,, ,, ,, ,, 14 ,, ,,	115 ,,	86.40
875.	,, ,, ,, ,, 16 ,, ,,	125 ,,	93.60
876.	,, ,, ,, ,, 18 ,, ,,	135 ,,	103.20

TRIMMINGS, Car.

Register and Car Fittings.

No.		Each.
10	Bracket	$ .30
12	,,	.30
14	,, for corner post	.25
15	Bracket	.23
40	Bracket, with cord eye	$ .28
42	Bracket	.25
45	,,	.25
50	,,	.20



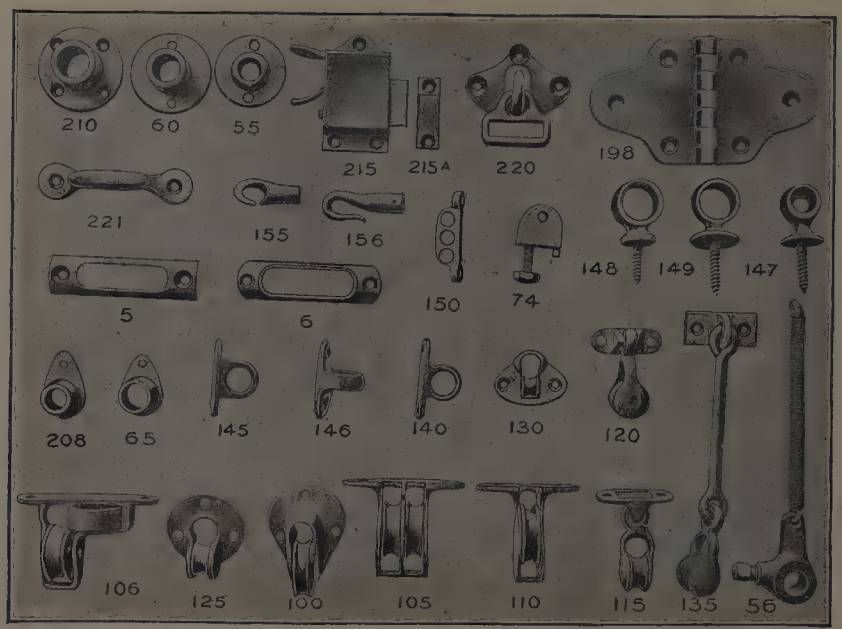


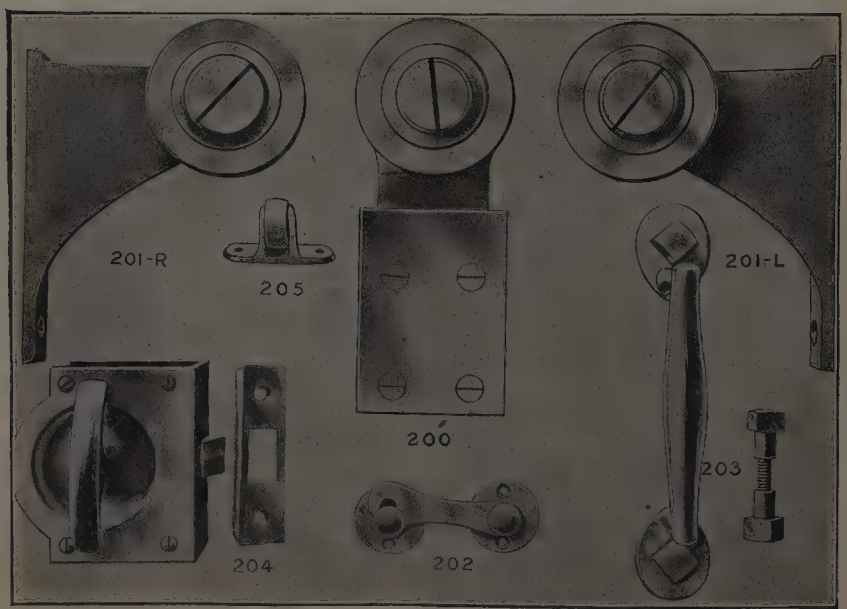
No.		Each.
20	Bracket, with cord eye	.30
22	Bracket	.25
25	,,	.25
30	,,	.25
52	Round rod couplings, ½-in.	.30
54	Round rod couplings, ⅝-in.	.35
70	Single lever, for operating two registers with one rod	$ .50
72	Double lever, for operating double register with one rod	.65
75	Rod crank, for single register	.25
80	Double handle (10-inch strap)	.50
82	Double handle (10-inch strap)	.50
83	Double handle (10-inch strap)	.50
85	Single handle (10-inch strap)	.30
86	Single handle (10-inch strap)	.30
87	Single handle (10-inch strap)	.28
90	Outside handle	.20
95	Handle, 3 in. long,	.20
96	Handle, 4½ in. long,	.25
97	Handle, 5 in. long,	.30
98	Handle, 6 in. long,	.35
211	Handle, 7 in. long,	.35
212	Rod crank,	.30
213	Handle, 3½-inch, with 10-in. strap	.35

TRIMMINGS, Car.

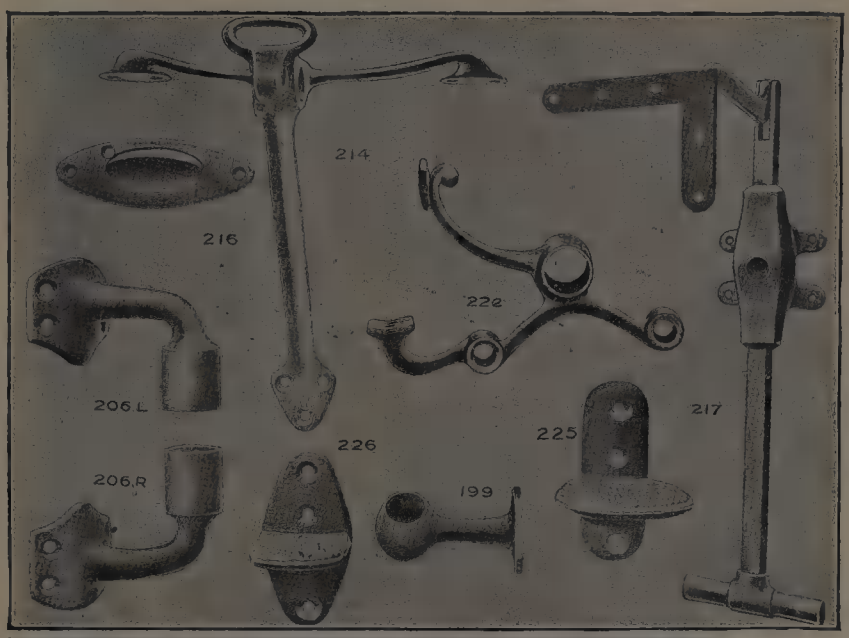
Register and Car Fittings (Continued).

No.		Each.
5	Seat buffers, with rubbers	$ .12
6	Ditto	.12
55	Cord plate	.12
56	Rod equalizer, with spring	.25
60	Rod plate, ½ inch	.12
65	Rod thimble	.05
106	Corner pulley,	$ .35
110	Single pulley,	.25
115	Swing pulley, perpendicular	.15
120	Swinging pulley, horizontal base	.15
140	Cord bracket, perpendicular	$ .10
145	Ditto	.10
146	Cord bracket, horizontal	.10
147	Screw cord eye, 5/16-in. hole	.10
148	Screw cord eye, ¾-in. hole	.10
149	Screw cord eye, ¾-in. hole	.10
150	Cord cleat,	.10
155	Polished cord hook,	10
156	Bell cord hook	.08
198	Vestibule door hinge	.45
200	Vestibule door sheave (with steel sheave)	2.00
201	Right hand door sheave (with steel sheave)	1.50
201	Left hand door sheave (with steel sheave)	1.50
202	Door latch,	.30
203	Double door handle	.65
204	Vestibule door lock,	2.00
205	Anti rattler	.25
208	Cord thimble, ½-in. hole	.05
210	Rod plate, for ⅜ round rod	.15
215	Sash lock,	.40
215A	Sash lock stop	.05
220	Grab strap holder	.30
221	Sash lifter,	.15

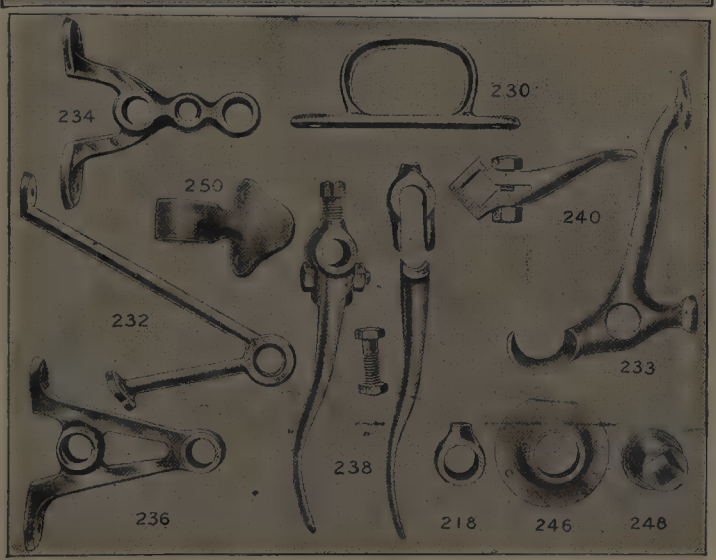




No.		Each.
74	Base lever connections, for New Haven register	.15
100	End pulley	.25
105	Double pulley	.30
125	End pulley,	.25
130	Thimble pulley	.20
135	Swing pulley, 6-in. drop	.25







TRIMMINGS, Car. Register and Car Fittings (Continued).

No.		Each.
199	Vestibule door grab handle socket, 2½ in. to centre of bar	$ .50
206	Grab handle socket, right	.55
206	Grab handle socket, left	.55
209	Bell cord fastener	.10
214	Register rod bracket	1.25
216	Sash lifter,	.35
217	Deck sash opener	1.50
218	Rod collar	.15
222	Hand rail bracket	.65
225	Corner post step (brass)	.40
226	Roof step (brass)	.40
228	Grab handle socket, 3 in. to centre of bar,	.50
230	Guard rail guide	.30
232	Bracket	.35
233	,, for strap rod,	.40
234	Bracket, for 2 rods and cord	.45
236	Bracket, for 2 rods	.40
238	Detachable handle	.40
240	Square rod strap handle	.35
242	Square rod crank	.30
244	Square rod equalizer, with spring	.25
246	Square rod plate	.18
248	Square rod bushing, for brackets and plates	.15
250	Moulding bracket	.25
	Bushing for same	.15
252	Square rod coupling,	.35
260	Door lock	2.00
265	Folding door catch	.50
270	Hand rail bracket	.75
	Bushing for same	.20

	Per Ft.
½-in. round steel rod,	$ .05
½-in. round (flat side),	.07
½-in. square rod	.06
⅝-in. round steel rod,	.06
⅝-in. round (flat side),	.08
⅝-in. square rod	.07

TRIP, Door (see Springs, door and window).
TRIPOD (see Crowfoot).
TROLLEY Bushing (see Bushings, graphite).
TROLLEY Clamp (see Ears).
TROLLEY Cord (see C).
TROLLEY Ears (see E).
TROLLEY Hangers (see Suspention).
TROLLEY Harp Axle (see A).
TROLLEY Poles (see P).
TROLLEY Rope (see Cord).
TROLLEY Suspension (see S)
TROLLEY Wheels (see W).
TROLLEY Wire (see W).
TROLLEY Pole Catcher (see C).
TRUCK, Armature (see Lift and Crane).
TRUING Device, Commutator (see Device).
TUBE, Brass (see Pipe, brass).
TUBE, Circular Loom (see Conduit).
TUBE, Flexible (see Conduit, also Brackets, flexible).
TUBE, Rubber, Hard and Soft (see Rubber).
TUBE, Porcelain.



Standard Tube.

Standard Porcelain Tubes.

List Prices.

Hole.	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$
Outside.	$\frac{9}{16}$	$\frac{11}{16}$	$\frac{13}{16}$	$\frac{15}{16}$	$1\frac{3}{16}$	$1\frac{7}{16}$	$1\frac{13}{16}$	$2\frac{3}{16}$	$2\frac{9}{16}$	$2\frac{15}{16}$	$3\frac{5}{16}$	$3\frac{11}{16}$
$\frac{1}{2}$ in.	$1.15	$1.32										
1 ,,	1.20	1.35	$1.73	$2.00	$2.87							
$1\frac{1}{2}$,,	1.28	1.38	1.80	2.20	2.95	$4.55						
2 ,,	1.36	1.45	2.00	2.40	3.10	4.80						
$2\frac{1}{2}$,,	1.44	1.56	2.30	2.54	3.36	4.98	$12.26	$15.60	$19.85	$23.45	$26.80	$30.35
3 ,,	1.55	1.82	2.56	2.80	3.62	5.24	13.80	17.40	22.05	25.85	29.60	32.55
4 ,,	1.70	1.97	2.80	3.44	3.90	6.52	15.60	19.20	23.95	27.70	31.50	35.30
5 ,,	3.06	3.60	4.22	5.10	5.60	8.28	18.10	25.30	34.15	41.70	48.85	56.80
6 ,,	3.90	4.68	5.44	6.22	7.00	9.34	19.20	31.20	45.35	57.95	70.55	83.20
8 ,,	7.20	8.40	9.60	10.80	12.00	16.80	24.00	38.40	58.10	73.90	89.80	105.60
10 ,,	9.60	10.80	12.00	14.40	16.80	19.20	31.20	45.60	66.00	81.80	97.70	113.50
12 ,,	14.40	15.60	16.80	19.20	21.60	26.40	45.60	69.20	102.10	128.00	154.00	180.00
14 ,,	16.80	19.20	21.60	24.00	24.00	28.80	52.80	81.60	121.40	153.10	184.80	216.50
16 ,,	19.20	21.60	24.00	28.80	31.20	36.00	62.40	91.20	132.00	163.70	195.40	227.00
18 ,,	21.60	24.00	28.80	33.60	36.00	40.80	72.00	102.20	158.60	195.10	231.40	267.60
20 ,,	24.00	26.40	31.20	36.00	38.40	45.60	79.20	112.80	176.15	216.00	256.30	296.60
22 ,,	27.60	30.00	33.60	38.40	43.20	49.20	86.40	123.60	192.95	237.60	282.20	326.90
24 ,,	31.20	33.60	36.00	40.80	48.00	52.80	93.60	134.40	210.20	259.20	308.20	357.10

Standard Package Quantities.

Size.	Quantity.	Size.	Quantity.
$\frac{5}{16}$ x $2\frac{1}{2}$	6200	$\frac{1}{2}$ x 5	1450
$\frac{5}{16}$ x 3	5200	$\frac{1}{2}$ x 6	1200
$\frac{5}{16}$ x 4	3600	$\frac{5}{8}$ x $2\frac{1}{2}$	2000
$\frac{5}{16}$ x 5	2800	$\frac{5}{8}$ x 3	1800
$\frac{5}{16}$ x 6	1900	$\frac{5}{8}$ x 4	1450
$\frac{3}{8}$ x $2\frac{1}{2}$	4000	$\frac{5}{8}$ x 5	1200
$\frac{3}{8}$ x 3	3400	$\frac{5}{8}$ x 6	1000
$\frac{3}{8}$ x 4	2700	$\frac{3}{4}$ x $2\frac{1}{2}$	1400
$\frac{3}{8}$ x 5	1800	$\frac{3}{4}$ x 3	1250
$\frac{3}{8}$ x 6	1500	$\frac{3}{4}$ x 4	850
$\frac{1}{2}$ x $2\frac{1}{2}$	2700	$\frac{3}{4}$ x 5	700
$\frac{1}{2}$ x 3	2300	$\frac{3}{4}$ x 6	600
$\frac{1}{2}$ x 4	1800		

All lengths from 7 inches to 14 inches long inclusive, and up to and including $\frac{3}{4}$-inch hole, 500 lots assorted.

All lengths from 16 inches to 24 inches long inclusive, and up to and including $\frac{3}{4}$-inch hole, 200 lots assorted.

All lengths and sizes not specified above, 100 lots assorted. For tubes glazed, add 50 per cent to the net prices.

For split tubes, multiply standard list by 4. For floor tubes, multiply standard list by 4.



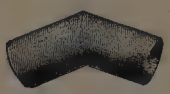
Speaking Tube. No. S-2660.



L. B. Elbow. No. S-2663.



Square Elbow.



Obtuse Elbow.



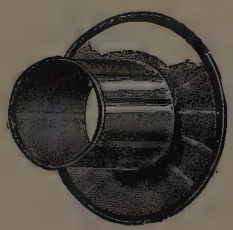
Round Elbow.



Tee. No. S-2666.



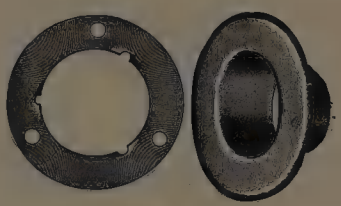
Collar. No. 26256.



Flange Collar. No. 26261.



No. 26281.



Tube Receptacle. No. 3158.



Rose. No. 26251.



No. 500.



No. 26241.



No. 26246.



Speaking Tube Whistle.

TUBE, Speaking.

Poole's Tin Speaking Tube.

Tube.

No. S-2660. 1-in. tube, per 1,000 ft., $34.00
,, S-2661. 1¼ ,, ,, ,, ,, 60.00
,, S-2662. 1½ ,, ,, ,, ,, 70.00

Elbows.

No. S-2663. 1-in. elbow .....per 100, $6.00
,, S-2664. 1¼ ,, ,, ... ,, 8.00
,, S-2665. 1½ ,, ,, ... ,, 14.00
L. B. elbow is regular.

Tees.

No. S-2666. 1-in. tees .....per 100, $12.00
,, S-2667. 1¼ ,, ,, ... ,, 18.00
,, S-2668. 1½ ,, ,, ... ,, 24.00

Speaking Tube Supplies.

Collars. Per Doz.
No. 26256. Nickel plated collars..... $1.40
,, 25255. Bronze collars..... 1.40

Flange Collars.
No. 26261. Nickel plated collars..... $2.60
,, 26260. Bronze collars..... 2.60

Tube Receptacle.
A back plate screwed to the wall is covered by the flange of the receptacle. For flexible tube end.
No. 3158. Tube receptacle complete, per doz., $2.40

Roses.
No. 26251. Nickel plated rose, per gross, $4.00
No. 26250. Bronze rose.. ,, 4.00
,, 32½. Nickel plated large rose.....per doz., 1.50
No. 32½B. Bronze large rose, per doz., 1.50

Holder or Rack.
No. 26281. Nickel plated holder $2.40
,, 26280. Bronze holder..... 2.40

Mouthpieces.
No. 500. Round porcelain open mouthpiece, 1 in.....per doz., $ .80
Height under shoulder, 11/16 in.
Height over shoulder, 1 in.
Hole, ⅝ in.
Std. package, 1,000.
No. 26241. Round nickel mouthpiece for 1-in. tube, per gross, 11.00
No. 26240. Round bronze mouthpiece for 1-in. tube, per gross, 9.60
No. 26246. Round flush nickel mouthpiece for 1-in. tube, per gross, 18.00
No. 26245. Round flush bronze mouthpiece for 1-in. tube, per gross, 17.00
(Oxidized copper and other finishes to order.)

Whistles.
No. 26155. Nickel plated whistle without indicator..per doz., $3.00
No. 26156. Nickel plated whistle with indicator.....per doz., 3.00
No. 26152. Bronze whistle without indicator .....per doz., 3.00
No. 26153. Bronze whistle with indicator.....per doz., 3.00

TUBE, Speaking.



Flexible Tube.



Wall Tube.

Speaking Tube Supplies (Continued).

Blank Whistles.

No. 26165. Bronze blank ..... per doz., $3.00
,, 26166. Nickel plated blank ..... ,, 3.00

Flexible Tube (without fitting).

No. 78. Flexible speaking tube, with spiral steel wire inside of band rubber tube, mohair covered, black and green ..... per ft., $ .60
(Other colors to order.)

Wall and Floor Tubes.

No. 26275. 2-ft. tubes made up with nickel plated whistle and collar ..... each, $1.70
No. 26276. 3-ft. ditto ..... ,, 2.00
Add per foot ..... .26
(Other finishes to order.)
No. 26277. Floor standard slide tube, 28 inches high, nickel finish, with flexible tube and whistle complete. Flexible tube slides into standard ..... each, 12.00



Slide Tube.

TUBES, Stuffing.

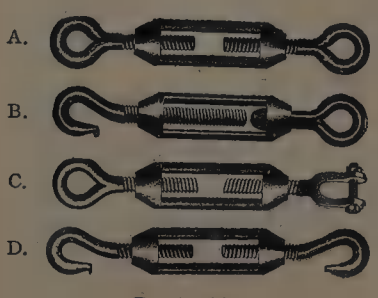
Prices will be furnished on application on bulkhead and conduit stuffing tubes from ½ inch to 1½ inches inclusive.

TUBING (see Rubber and Tapes).

TURNBUCKLES (see Insulators, strain).

Wrought Iron Turnbuckles.

Diameter of Thread.	Length in the Clear between Heads.	Galvanized, Each.	Plain, Each.
3/16 in.	3½	$ .95	$ .80
¼ ,,	4	1.00	.85
5/16 ,,	4½	1.10	.90
⅜ ,,	4½	1.30	1.10
7/16 ,,	5	1.50	1.25
½ ,,	6	1.80	1.55
9/16 ,,	7	2.10	1.85
⅝ ,,	8	2.40	2.00
¾ ,,	9	3.50	2.75
⅞ ,,	10	4.25	3.50
1 ,,	11	5.50	4.25
1⅛ ,,	12	7.00	5.25
1¼ ,,	13	8.25	6.25
1⅜ ,,	14	9.50	7.50
1½ ,,	15	11.00	9.00
1⅝ ,,	16	15.00	13.00
1¾ ,,	16	20.00	17.00
2 ,,	16	28.00	25.00



Turnbuckles.

NOTE. — Unless otherwise specified Style A will be sent.

G. E. Insulated Turnbuckles.

These turnbuckles have a maximum draw up of 6½ inches; one end only is insulated.

No. 17339. Japanned turnbuckle, with insulated eye ..... per 100, $137.50
No. 27383. Galvanized turnbuckle, with insulated eye ..... per 100, 150.00



No. 17339.



No. 1453.

UNCUT Mica (see M).
UNION, Wire (see Connectors, Splicers, Couplers, etc.).
URNS.

Simplex Single Shell Standard Urns.

Copper, nickel plated, complete with switches for giving three heats. Use maximum current for starting and then lower current for keeping hot.

No.		Watts Required. Min.	Max.	Price.
1453.	1 gal. Plain top, nickel legs. Cord and switch, no plug.....	110	440	$16.00
1455.	2 gals. Plain top. Three heats. Same style as No. 1453. Cord and switch, no plug.....	220	660	18.00
457.	3 gals. Plain top, with water glass. Three heats. Cord and plug switch.....	330	1320	35.00
458.	3 gals. Platform top for glasses, with water glass. Three heats. Cord and plug switch.....	330	1320	40.00
459.	5 gals. Plain top, with water glass. Three heats. Cord and plug switch.....	440	1760	42.50
460.	5 gals. Platform top for glasses, with water glass. Three heats. Cord and plug switch.....	440	1760	47.50



No. 1461.



No. 1451.

Simplex Jacketed Urns.

These urns are of the best possible finish and workmanship, are heavy copper, nickel plated, double tinned inside, have double walls and cover, with ¾-inch space filled with best wool felt and perfectly sealed.

No.		Watts Required. Min.	Max.	Price.
1461.	1 gal. Jacketed. Three-heat switch. Plain, with cord, no plug.....	100	500	$23.00
1462.	Same as above, with gauge glass..	100	500	25.00
1463.	2 gals. Jacketed. Three-heat switch. Plain, with cord, no plug.....	125	800	29.00
1464.	Same, with gauge glass.....	125	800	31.00
1465.	Same, with gauge glass and tumbler top.....	125	800	33.00



No. 1465.

Simplex Ornamental Bar or Barber's Urns.

Made for small bars and barber shops. Is copper, nickel plated, with ornamental (removable) heater, three heats, keeps hot with 50 watts, and connects to lamp socket.

No.		Watts Required. Min.	Max.	Price.
1451.	3 pts. 12¾ in. high. Three-heat switch. Cord and plug.....	50	250	$11.00
1452.	5 pts. Three-heat switch. Cord and no plug.....	150	550	14.50



No. 450.

Simplex Special Quick Heating Water Urns.

To meet a demand for physicians' offices and other places where a small amount of boiling water is wanted quickly, we furnish a highly polished, nickel plated copper urn with faucet, arranged with nickel plated immersion coil heater, which will boil vigorously one quart of water in three minutes from the time of turning on the current; water at hydrant temperature.

		Watts.	Price.
No. 450.	2 qt. Cord, no plug; 16 in. high..	1200	$16.00



No. 1286.

URNS (Continued).

Simplex Spray Coffee Urns (see also Percolators).

Made of heavy copper, double tinned and nickel plated.

It is only necessary to measure a definite amount of coffee, place within the glass dome on top, turn the heater switch and a gentle spray of steam and water is supplied, which seeps through from above, effectively distilling its essential elements.

Removing the urn leaves a convenient ornamental heater that may be made use of for toasting, warming biscuits, etc.

Urns with Heaters.

No. 1286. 2-pt. urn, plain nickel plated. Ornamental stove 4½-in. diameter, same as No. 1784; 3 heats, with cord and plug; 200 watts..... $14.25

No. 1287. 2½-pt. urn, plain nickel plated. Ornamental stove 6-in. diameter, same as No. 1788; 3 heats, with cord and plug; 500 watts..... 17.25

No. 1288. 3½-pt. urn, plain nickel plated. Ornamental stove 6-in. diameter, same as No. 1788; 3 heats, with cord and plug; 500 watts..... 17.75

No. 1289. 3½-pt. urn, fluted nickel plated. Ornamental stove 6-in. diameter, same as No. 1788; 3 heats, with cord and plug; 500 watts..... 18.80



No. 0287.

Urns without Heaters.

No. 0286. 2-pt. plain nickel plated. Fits 4½-in. stove..... $6.25

,, 0287. 2½-pt. plain nickel plated. Fits 6-in. stove..... 6.25

,, 0288. 3½-pt. plain nickel plated. Fits 6-in. stove..... 6.75

,, 0289. 3½-pt. fluted nickel plated. Fits 6-in. stove..... 7.80

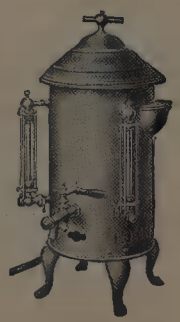
Simplex Coffee Urns.

For hotel and restaurant use.

Arranged for three divisions of heat.

These are made of heavy copper, nickel plated, and have vitrified coffee chamber. They are fitted with gauge glasses for both water and coffee.

		Watts. Min.	Watts. Max.	Price.
No. 1472.	2-gal., complete with cord and plug....	350	1400	$48.00
,, 1473.	3 ,, ,, ,, ,, ,, ,, ...	425	1700	56.00
,, 1474.	4 ,, ,, ,, ,, ,, ,, ...	525	2100	62.00
,, 1475.	5 ,, ,, ,, ,, ,, ,, ...	625	2500	68.00



No. 1472.

Simplex Spray Coffee Urns.

No. 1292.	2-pt. plain stove, cord and plug.....	300	$11.00
,, 1293.	3 ,, ,, ,, ,, ,, ,, ...	300	11.50
,, 1294.	4 ,, ,, ,, ,, ,, ,, ...	300	12.25
,, 1295.	2 ,, ornamental stove, cord and plug.....	300	12.50
,, 1296.	3 ,, ,, ,, ,, ,, ,, ...	300	13.00
,, 1297.	4 ,, ,, ,, ,, ,, ,, ...	300	13.75

UTENSILS (see Pots, Blazers, Kettles, Pans, etc.).



No. 1296.

VARNISHES (see Armalac, Asphaltum, Enamelac, Insulac, and Compounds).

No. 4 Moulding Varnish.

This is a cheap transparent insulating varnish approved by underwriters for dipping or painting moulding. It thoroughly impregnates, insulates, and is perfectly waterproof. It prevents the absorption of moisture, dries rapidly, and can be thinned with gasoline, turpentine, or naphtha. No. 4 moulding varnish has been found serviceable outside of the electrical line for sizing walls, filling wood, etc., and to hold up high grade varnishes or shellac.

Moulding varnish in cans.....net, per gal., $1.00

,, ,, ,, barrels..... ,, .75

S. P. C. Armature and Field Coil Varnish.

Barrels of about 50 gals.....	per gal.,	$2.90
½ barrels, 25 to 30 gals.....	,,	3.00
5- or 10-gal. cans.....	,,	3.25
2½-gal. cans, 2 cans in a case.....	,,	3.35
1 ,, ,, 6 ,, ,, ,, ...	,,	3.50
½ ,, ,, 10 ,, ,, ,, ...	,,	3.75
Quart ,, 12 ,, ,, ,, ...	,,	4.00

Q. D. Voltalac No. S-2700.

1- gal. cans (12 gals. per case).....	per can,	$2.00
½ ,, ,, (12 ,, ,,).....	,,	1.10
¼ ,, ,, (12 ,, ,,).....	,,	.60

VARNISHES (Continued).

Gutta Percha Black Finishing, No. S=2705.

1- gal. bottles (6 gals. per case).....per bottle, $3.00
½ ,, ,, (6 ,, ,,).....,, 1.60
¼ ,, ,, (6 ,, ,,).....,, .85

Gutta Percha Light Furnishing, No. S=2710.

1- gal. bottles (6 gals. per case).....per bottle, $3.00
½ ,, ,, (6 ,, ,,).....,, 1.60
¼ ,, ,, (6 ,, ,,).....,, .85

W. P. Insulating Black, No. S=2715.

5- and 10-gal. cans.....per gal., $1.30
1- gal. cans (12 gals. per case).....per can, 1.40
½ ,, ,, (12 ,, ,,).....,, .80
¼ ,, ,, (12 ,, ,,).....,, .45

Sterling Extra Insulating Varnish, No. S=2720.

Very high insulating properties, tough and elastic, bakes readily and will not corrode wires. Unaffected by water or lubricating oils, a good insulator wet or dry.

Less than ½ barrels.....per gal., $2.50
½ barrels.....,, 2.25
Barrels.....,, 2.00



Varnish.

Sterling Black Plastic Insulator, No. S=2725.

Permanently plastic, oil and water proof, water repellent, high insulation. This is the only insulating material made that is plastic, permanently elastic, and oil and water proof.

It is permanently plastic under high heat or overloading conditions and does not deteriorate in any way. The fact that it will stand uninjured 100 days in the baking oven at 85° C. (190° F.) insures these results. Insulation 1,500 to 1,800 volts per 1-1000 inch.

Particularly adapted to armature and field coils in machines which are subjected to heavy overloads.

Less than barrels.....per gal., $2.00
Barrels.....,, 1.75

Sterling Elastic Insulating Varnish No. S=2730.

A clear varnish for work where extreme elasticity and long heat resistance is required. Good insulation, perfect oil and water resistance. Will stand heat of baking oven 60 days without injury, insuring the permanency of insulation of coils in overloaded machines.

Less than ½ barrels.....per gal., $2.50
½ barrels.....,, 2.25
Barrels.....,, 2.00

Sterling Extra Black Finishing Varnish, No. S=2735.

High finish, quick air drying, good black color, good insulation and will not fade.

Less than barrels.....per gal., $2.75
Barrels.....,, 2.50

Sterling Black Air Drying Varnish, No. S=2740.

A good air drying or baking varnish for quick repairs and ordinary work.

Less than barrels.....per gal., $1.75
Barrels.....,, 1.50

Sterling Black Insulating Paint, No. S=2745.

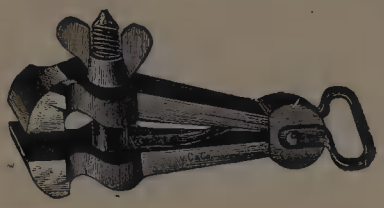
A good, durable, quick drying black paint for use on overhead and underground connections, iron work, car bottoms, truck frames, snow plows, etc.

Less than barrels.....per gal., $ .90
Barrels.....,, .80

Sterling Black Core Plate Varnish, No. S=2750.

For use only on armature discs, dries in three to five minutes.

Less than barrels.....per gal., $1.25
Barrels.....,, 1.00



Lineman's Vise.



Howe's Tool.





VEGETABLE Boiler (see B).
VETTER Current Tap (see T).
VICTOR Split Insulators (see Insulators, porcelain).

VISES.

Vises.

No. S-2765.	Lineman's vise without strap..	$2.20
,, S-2766.	,, ,, with strap.....	3.30
,, S-2767.	Strap only.....	1.10
,, S-2768.	Copper faced vise only.....	3.00
,, S-2769.	,, ,, ,, ,, with strap,	4.10

Howe's Wire Tool.

Consisting of vise strap, roller and hook complete,

No. S-2774.	.....	$8.50
,, S-2775.	Same without vise.....	6.20

VITRIOL, Blue.

Blue Vitriol (Sulphate of Copper).

No. S-562. In barrel lots of about 400 lbs., per lb., $ .16

In small lots (see Batteries, wet, gravity).

VOLTAK.

Voltak.

A dry compound for primary batteries. One can will make a gallon of solution.

No. S-2780. Voltak.....per can, $ .50

VOLTALAC (see Varnishes).

VOLT-AMMETERS, Battery.



Crown Volt-Ammeter.

Crown Volt-Ammeters.

Registers both volts and amperes. Has one cord bifurcated at the end, the red cord corresponding with the red scale of volts, the green cord for the ampere readings. Complete with case.

No. S-2785.	12	volts,	15	amperes	.....	each,	$6.25
,, S-2786.	15	,,	25	,,	.....	,,	7.00



Connecticut Volt-Ammeter.

Connecticut Volt-Ammeters.

Good for either storage or dry cells. Read volts only on storage batteries and amperes of dry cells. Two instruments in one. Accurate and permanent.

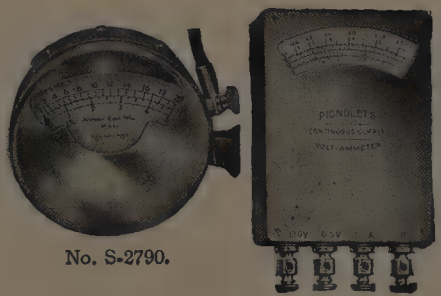
No. 801.	0-6	volts,	0-24	amperes	...	each,	$6.00
,, 802.	0-6	,,	0-30	,,	...	,,	6.00
,, 0802.	0-15	,,	0-30	,,	...	,,	7.00

Kent Volt-Ammeters.

Designed especially for testing gas engine batteries. A flexible cord is used for both readings by simply pressing the button for ampere readings, no other change being necessary.

The instrument is " dead-beat " and hand calibrated.

No. S-2790.	5	volts,	20	amperes	.....	each,	$6.00
,, S-2791.	6	,,	30	,,	.....	,,	6.00
,, S-2792.	10	,,	20	,,	.....	,,	7.00
,, S-2793.	10	,,	30	,,	.....	,,	7.00
,, S-2794.	15	,,	20	,,	.....	,,	7.00
,, S-2795.	15	,,	30	,,	.....	,,	7.00



No. S-2790.

Pignolet Volt-Ammeter.

Pignolet Volt-Ammeters.

Permanent magnet type, high accuracy, equal scale divisions, jewel bearings, hardened steel pivots and specially calibrated.

No. 230.	5	volts,	30	amperes	.....	each,	$13.00
,, 231.	10	,,	30	,,	.....	,,	13.00
,, 232.	20	,,	30	,,	.....	,,	13.00
,, 233.	50	,,	30	,,	.....	,,	14.00
,, 234.	100	,,	30	,,	.....	,,	14.00
,, 235.	130	,,	30	,,	.....	,,	15.00
,, 236.	150	,,	30	,,	.....	,,	17.00

VOLT=AMMETERS, Portable.



Weston Standard Portable Volt-Ammeter.

Weston Standard Portable Volt=Ammeter, Direct Current, Model 1.

By means of a switch on the base, this instrument may be converted into either a voltmeter or an ammeter. It is suitable only to small current readings, such as testing incandescent lamps or determining the internal resistance of telegraph batteries, etc. Care must be used in making the connections.

For lamp testing a special form is furnished having two lamp sockets connected directly on the instrument base.

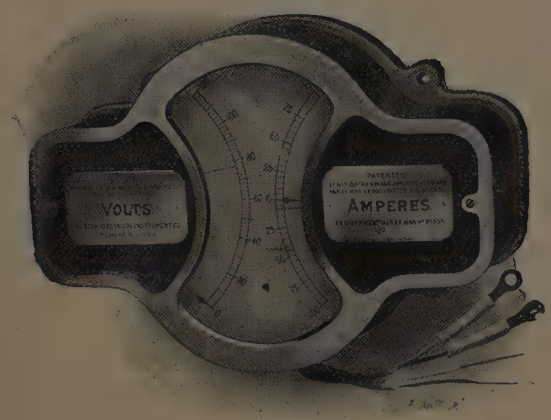
No. 1. Range, 0 to 150 volts, and 0 to 1.5 amperes, reading to 150 volts by single-volt divisions, or to 1½ amperes by $\frac{1}{100}$ ampere divisions..... $75.00

No. 2. Range, 0 to 150 volts, and 0 to 3 amperes, reading to 150 volts by single-volt divisions, or to 3 amperes by $\frac{1}{50}$-ampere divisions..... 75.00

No. 3. Either of the above ranges with lamp-testing attachments, including adapters for Ed., West., and T.-H. lamps..... 85.00

Other combinations will be made on special order, but they are not recommended in connection with high voltage or heavy currents.





Models 38 and 39 Duplex Instruments.

Weston Duplex Instruments, Direct Current, Models 38 and 39 (Old Models R. & T.).

These instruments consist of a voltmeter and an ammeter in one case, especially adapted for use in confined spaces or where simultaneous readings are to be taken.

Model 39 has an aluminum case and is practically waterproof and is especially adapted for automobile use, but is not serviceable where powerful magnetic fields exist. In ordering state whether the 0 point is to be located in the middle or nearer one side than the other for use in charging or discharging storage batteries, the rate of charge being generally less than that of discharge.

Model 38 has an iron case and is not waterproof, but is well adapted for use where there is a strong magnetic field. It is much heavier than Model 39. The prices of the two styles are the same.

Dimensions — Model 39: length, 9½ in.; width, 7 in.; height or depth, 3¼ in.;

(*Continued on next page.*)

VOLT-AMMETERS, Portable.

Weston Duplex Instruments, etc. (Continued).

weight, 8 lbs. Model 38: length, 11 in.; width, 8½ in.; height or depth, 3⅞ in.; weight, 17 lbs.

Range for Amp. Scale in Amperes.	75 Volts. Price.	150 Volts. Price.	300 Volts. Price.	600 Volts. Price.
10	$35.00	$35.00	$41.75	$44.00
25	35.00	35.00	41.75	44.00
50	35.00	35.00	42.25	44.50
100	35.00	35.00	43.00	45.25
150	35.00	35.00	43.50	45.75
200	39.75	41.75	44.50	46.75
300	40.00	42.00	44.75	47.00
400	40.25	42.25	45.00	47.25
500	41.00	43.00	45.75	48.00

If double scales should be desired in the voltmeter, any ranges below those given in the list will be supplied at an extra charge of $2.50 in addition to the price for the highest range.

VOLTMETERS, see following headings:

Voltmeters, Battery.
,, Portable.
,, Switchboard.
,, Recording.



Crown Pocket Voltmeter.

VOLTMETERS, Battery.

Crown Pocket Voltmeters.

Watch size put up in square case with snap. Conducting cord permanently attached to body of instrument.

No. S-2800	0–3 volts	each,	$4.60
,, S-2801	0–6 ,,	,,	4.60
,, S-2802	0–10 ,,	,,	4.60
,, S-2803	0–15 ,,	,,	4.60
,, S-2804	0–120 ,,	,,	5.50



Crown Flange Voltmeter.

Crown Flange Voltmeters.

Arranged to fasten to dash board or small switchboard.

2½-Inch Diameter.

No. S-2810	0–3 volts	each,	$4.80
,, S-2811	0–6 ,,	,,	4.80
,, S-2812	0–10 ,,	,,	4.80
,, S-2813	0–15 ,,	,,	4.80
,, S-2814	0–120 ,,	,,	5.75

3-Inch Diameter.

No. S-2815	0–3 volts	each,	$5.85
,, S-2816	0–6 ,,	,,	5.85
,, S-2817	0–10 ,,	,,	5.85
,, S-2818	0–15 ,,	,,	5.85
,, S-2819	0–120 ,,	,,	6.75



Kent Voltmeter. Leather Case.

Connecticut Voltmeters.

Permanent magnets. Accurately calibrated. Durable.

No. 804.	0–3 volts in $\frac{1}{10}$-volt divisions	$4.00
,, 805.	0–8 ,,	4.50
,, 806.	0–15 ,,	5.00

Kent Pocket Voltmeters.

Similar in form to the Kent volt-ammeter illustrated above. Complete in leather case.

No. S-2825	0–3 volts	each,	$4.00
,, S-2826	0–9 ,,	,,	4.00
,, S-2827	0–15 ,,	,,	5.00
,, S-2828	0–20 ,,	,,	5.00



Pignolet Pocket Style.

Pignolet Pocket Voltmeters.

Voltmeters.	Range.		
No. 200.	0–5, tenth volt divisions	each,	$10.00
,, 201.	0–10, fifth volt divisions	,,	10.00
,, 202.	0–20, half volt divisions	,,	10.00
,, 203.	0–50, single volt divisions	,,	11.00
,, 204.	0–100, two volt divisions	,,	11.00
,, 205.	0–130, ,, ,,	,,	12.00
,, 206.	0–260, five ,, ,,	,,	14.00



K. & D. Voltmeter.



Pignolet Flange Voltmeter.

VOLTMETERS, Battery.

Pignolet Pocket Voltmeters (Continued).

Double Reading Voltmeters.

	Range.	Each.
No. 210.	0–5 and 0–25 volts	$14.00
,, 211.	0–5 ,, 0–50 ,,	14.00
,, 212.	0–5 ,, 0–100 ,,	14.00
,, 213.	0–6.5 volts in tenths, and 0–130 volts	15.00
,, 214.	0–130 and 0–260 volts	16.00

Voltmeters for Storage Batteries.

	Range.	
No. 215.	0–3, twentieth volt divis.	$10.00

Pignolet Flange Voltmeters.

	Range.	
No. 300.	0–10, fifth volt divisions,	$11.00
,, 301.	0–25, half volt divisions,	11.00
,, 302.	0–75, single volt divisions,	11.00
,, 303.	0–150, two volt divisions,	11.50

K. & D. Voltmeters, No. S-2830.

A toy voltmeter that will give fairly accurate results.
Suitable for boys' experimental work.
K. & D. voltmeter.....each, $2.00

VOLTMETERS, Portable.

Weston Standard Portable Voltmeter, Direct Current, Model 1.

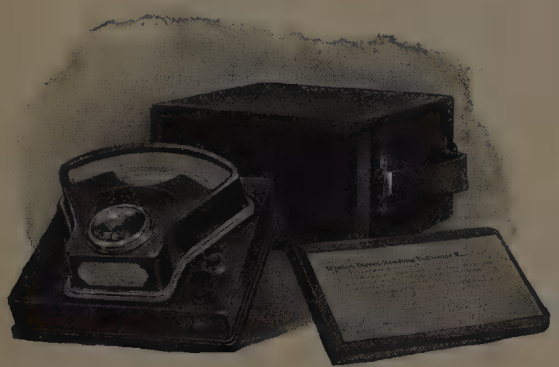
The Weston instruments are calibrated and adjusted with the greatest care. They are direct reading, permanent and dead-beat and are in fact the recognized standard for laboratory and general testing. They are accurate to $\frac{1}{5}$ of 1 per cent, when used with proper care.

Uniform scales from 0 to the top mark. Pointer has thin end with mirror underneath, making readings very accurate and easily estimated to $\frac{1}{10}$ of the smallest divisions. Contact key.

Regular Style.

No.	Range in Volts.	No. of Scale Divisions.	Value of each Scale Division. in Volts.	Readable in Volts to	Price.
1	150	150	1	$\frac{1}{10}$	$55.00
2	150	150	1	$\frac{1}{10}$	57.50
3	150 / 5	150	1 / $\frac{1}{30}$	$\frac{1}{10}$ / $\frac{1}{300}$	75.00
3½	150 / 3	150	1 / $\frac{1}{30}$	$\frac{1}{10}$ / $\frac{1}{500}$	75.00
4	150 / 15	150	1 / $\frac{1}{10}$	$\frac{1}{10}$ / $\frac{1}{100}$	75.00
4½	300 / 150	150	2 / 1	$\frac{1}{5}$ / $\frac{1}{10}$	77.50
5	300	150	2	$\frac{1}{5}$	65 00
6	450	150	3	$\frac{1}{3}$	65.00
7	600	120	5	$\frac{1}{2}$	65.00
9	600 / 150	150	4 / 1	$\frac{1}{2}$ / $\frac{1}{10}$	80.00
9½	750 / 150	150	5 / 1	$\frac{1}{2}$ / $\frac{1}{10}$	80.00
10	600 / 300	150	4 / 2	$\frac{1}{2}$ / $\frac{1}{5}$	80.00
11	750	150	5	$\frac{1}{2}$	70.00

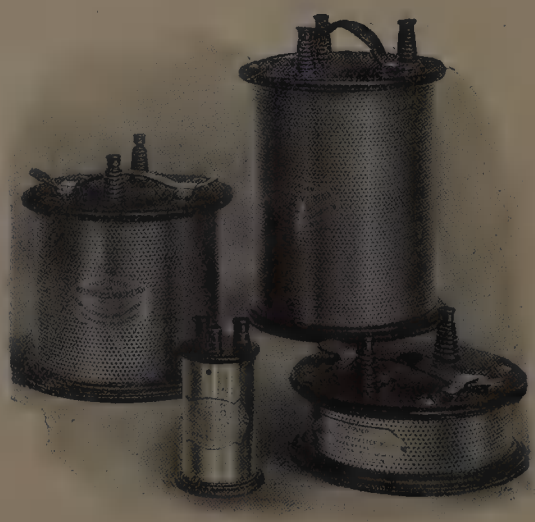
Any of the above with reversing key, price, extra..... 2.50
(When reversing key is applied contact key is omitted.)



Weston Standard Portable Voltmeter Model 1.



Inspector's Style Weston Portable Voltmeter.



Multipliers for Weston Standard Portable Voltmeter.

VOLTMETERS, Portable

Weston Standard Portable Voltmeter, etc. (Continued).

Inspector's Style.

Classified as "Inspector's Style," these voltmeters are furnished securely fastened in highly polished mahogany cases. They are provided with reversing keys and instead of the regular binding posts, pins are used with which connections are made by means of contact cups attached to flexible cords. The inspector's style with adapters is especially recommended to electric light inspectors.

To list prices of voltmeters above, add amounts given below.

No. 1. Complete with flexible cords, $4.00

,, 2. Complete with flexible cords and compartment for same..... 5.00

No. 3. Case contains compartment with set of four lamp adapters and flexible conducting cords..... 10.00

Multipliers for Voltmeters.

These multipliers are highly insulated resistance boxes and are adjusted for use with the above voltmeters so that the readings may be multiplied by any desired constant for reading high voltages, etc. They are generally used with 120 and 150 volt instruments.

Multiplying Constant of	Capacity in Volts of Voltmeter and Multiplier Combined.	Price.
2 for 150 volts	300	$10.00
4 ,, 150 ,,	600	15.00
5 ,, 150 ,,	750	20.00
10 ,, 120 ,,	1200	25.00
10 ,, 150 ,,	1500	30.00
20 ,, 100 ,,	2000	40.00
15 ,, 150 ,,	2250	45.00
25 ,, 100 ,,	2500	50.00
20 ,, 150 ,,	3000	50.00
25 ,, 150 ,,	3750	60.00
40 ,, 100 ,,	4000	65.00
30 ,, 150 ,,	4500	70.00
50 ,, 100 ,,	5000	80.00
40 ,, 150 ,,	6000	90.00
65 ,, 100 ,,	6500	100.00
60 ,, 120 ,,	7200	105.00
50 ,, 150 ,,	7500	110.00
60 ,, 150 ,,	9000	130.00
100 ,, 100 ,,	10000	150.00
100 ,, 120 ,,	12000	175.00
100 ,, 150 ,,	15000	200.00

For subdivisions, add $5.00 to above prices for each additional range.

Special prices will be quoted for multipliers for instruments of other ranges than above.



Portable Model 45 Direct-Current Instruments.

VOLTMETERS, **Portable** (Continued).

Weston Portable Voltmeter, Direct Current, Model 45.

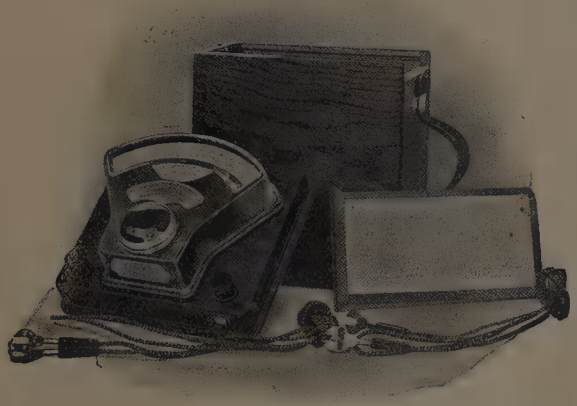
These instruments are designed to meet the demand for a low-priced voltmeter of sufficient accuracy for station work and general testing. Iron case and wooden carrying box with hinged cover. Dimensions, 8¼ inches wide, 8½ inches long, 4⅜ inches high.

Range in Volts.	Value of Each Scale Division in Volts.	Price.
0– 3	.02	$25.00
0– 5	.05	25.00
0– 15	.1	25.00
0–150	1	29.50
0–300	2	32.50
0–600	5	35.00
0–750	5	37.00

Double scale voltmeters at $5.00 list additional to the list price for the highest range.

Weston Standard Portable Milli-Voltmeter, Direct Current, Model 1.

Especially constructed for the measurement of very low electromotive forces, such as are developed by differences of temperature between two metals. Also used for measuring low resistances by noting the fall of potential while the conductor being tested is carrying current.



Weston Standard Portable Milli-Voltmeter.

No. 1. Range, 0 to 20 milli-volts, 100 divisions, each representing .2 of a milli-volt, readable to .02 of a milli-volt $50.00

No. 2. Range, 10 to 0 to 10 milli-volts, zero centre, 100 divisions, each representing .2 of a milli-volt, readable to .02 of a milli-volt 50.00

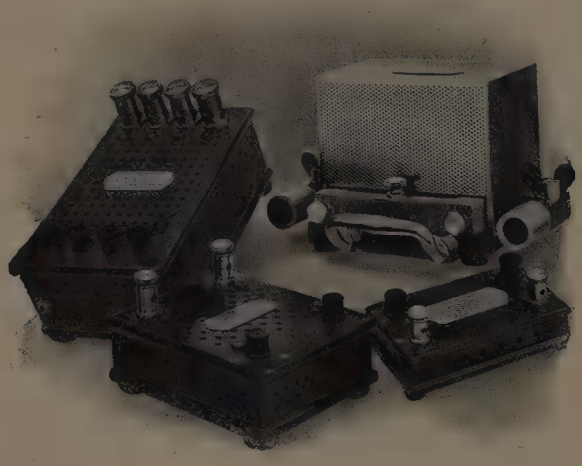
No. 3. Double range, 10 to 0 to 10 and 100 to 0 to 100 milli-volts, zero centre, 100 divisions, supplied with contact key, by the use of which either range may be employed 55.00

No. 4. Double range, 0 to 20 and 0 to 200 milli-volts, 3 binding-posts, 100 divisions, each representing either .2 of a milli-volt or 2 milli-volts, according to range used 55.00

The above milli-voltmeters, used in connection with the following shunts, read directly in amperes. Shunts of different capacities can be adjusted to the same instrument, and it can therefore be used to measure a current of 2,000 amperes as easily as one of 1 ampere.

VOLTMETERS, Portable.

Weston Standard Portable Milli-Voltmeter, Direct Current, Model I
(Continued).



Weston Standard Portable Special Alloy Shunts.

Range. Amps.	Price.	2 Ranges in One Case. Ranges. Amps.	Price.	3 or More Ranges in One Case. Ranges. Amps.	Price.
1	$10.00	5– 1	$20.00	15–3–0.75	$30.00
3	12.50	10– 1	22.50	15–3–1.5	30.00
5	15.00	15– 1.5	25.00	30–15–1.5	35.00
10	15.00	15– 3	25.00	30–15–3	35.00
15	15.00	30– 3	25.00	30–15–7.5–1.5	47.50
25	17.50	40– 4	27.50	50–5–0.5	40.00
30	20.00	50– 5	30.00	50–10–1	40.00
50	22.50	75– 15	35.00	50–20–5–0.5	55.00
75	25.00	100– 10	40.00	75–15–1.5	42.50
100	30.00	150– 15	42.50	100–10–1	45.00
150	32.50	150– 30	45.00	100–20–2	45.00
200	35.00	200– 20	47.50	100–50–20–2	60.00
250	37.50	300– 15	52.50	100–50–20–10–5–1	70.00
300	40.00	300– 30	55.00	150–15–1.5	50.00
400	45.00	300–150	60.00	150–15–1.5–.15	60.00
500	50.00	400– 40	60.00	150–75–15	55.00
600	55.00	400–200	65.00	150–75–15–1.5	65.00
750	60.00	500– 50	62.50	150–75–15–1.5–.75	70.00
800	65.00	500–100	65.00	200–20–2	55.00
1000	80.00	500–200	65.00	200–100–10	60.00
1500	130.00	600– 60	65.00	300–15–1.5	60.00
2000	175.00	600–300	80.00	300–30–3	60.00
		750–300	90.00	300–75–15	65.00
		1000–500	140.00		

Weston Standard Portable Voltmeter, Alternating and Direct Current, Model 18.

This type of instrument can be used in measuring the voltage of both alternating and direct-current circuits, although where direct-current circuits only are to be measured the portable direct-current voltmeters are recommended as being preferable owing to the fact that it is necessary to reverse the polarity of the circuit and take the mean of the two readings in order to insure accurate results. These instruments are permanent, and, if properly used, their indications may be relied upon to within $\frac{1}{5}$ of 1 per cent for such parts of the scale as we have designated "best range" in the price list. They are not designed to be left permanently in circuit, but are intended simply for testing, and should not be kept in circuit for any great length of time.



Weston Standard Portable Alternating-Current Voltmeter.

Single Scale. No.	Ranges in Volts.	Best Range in Volts.	Val. Ea. Scale Div. in R., V.	Within B. R. Readable to, in V.	Price.
1	1.5– 7.5	2.5– 6.5	$\frac{1}{10}$	$\frac{1}{100}$	$60.00
2	1.5– 10	4 – 9	$\frac{1}{10}$	$\frac{1}{100}$	60.00
3	2 – 12	5 – 11	$\frac{1}{10}$	$\frac{1}{100}$	60.00
4	3 – 15	5.5– 12	$\frac{1}{10}$	$\frac{1}{100}$	60.00
5	3 – 20	7 – 18	$\frac{1}{5}$	$\frac{1}{50}$	60.00
6	10 – 60	25 – 55	$\frac{1}{2}$	$\frac{1}{20}$	60.00
7	15 – 75	30 – 65	$\frac{1}{2}$	$\frac{1}{20}$	60.00
8	20 –120	50 –110	1	$\frac{1}{10}$	65.00
9	30 –150	70 –125	1	$\frac{1}{10}$	67.50
10	60 –300	140 –250	2	$\frac{1}{5}$	70.00
11	100 –600	250 –550	5	$\frac{1}{2}$	80.00

VOLTMETERS, Portable.

Weston Standard Portable Voltmeter, Alternating and Direct Current, Model 18 (Continued).

No.	Double Scale. Ranges in Volts.	Best Range in Volts.	Val. Eq. Scale Div. in B. R. V.	Within B. R. Readable to, in V.	Price.
16	3 – 15 1.5– 7.5	5.5– 12 2.5– 6.5	$\frac{1}{10}$ $\frac{1}{20}$	$\frac{1}{100}$ $\frac{1}{200}$	$70.00
17	3 – 20 1.5– 10	7 – 18 4 – 9	$\frac{1}{10}$ $\frac{1}{20}$	$\frac{1}{100}$ $\frac{1}{200}$	70.00
18	20 –120 10 – 60	50 –110 25 – 55	1 $\frac{1}{2}$	$\frac{1}{10}$ $\frac{1}{20}$	70.00
19	30 –150 15 – 75	70 –125 35 – 63	1 $\frac{1}{2}$	$\frac{1}{10}$ $\frac{1}{20}$	75.00
20	30 –200 15 –100	70 –180 35 – 65	2 1	$\frac{1}{5}$ $\frac{1}{10}$	75.00
21	60 –300 30 –150	140 –250 70 –125	2 1	$\frac{1}{5}$ $\frac{1}{10}$	80.00
21½	120 –600 30 –150	280 –500 70 –125	4 1	$\frac{2}{5}$ $\frac{1}{10}$	85.00
22	120 –600 60 –300	280 –500 140 –250	4 2	$\frac{2}{5}$ $\frac{1}{5}$	90.00

Inspector's Style.

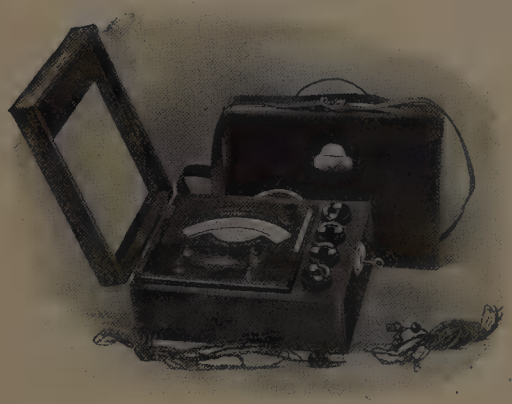
No. 1. Inspector's style has an additional compartment for flexible connecting plug. Price, additional to price of voltmeter $2.50

No. 2. Inspector's style same as above, but with four lamp adapters and flexible cord with connecting plug. Adapters are made for Edison, Thomson-Houston, Westinghouse and Weston sockets only. For making proper connections it is simply necessary to remove a lamp, substitute the adapter plug conforming with the socket and connect the instrument by means of the flexible cord and plug. Price, additional to price of voltmeter 7.50

Single lamp adapter, if ordered separately 1.25

Flexible connecting cord with plain contacts, if ordered separately 1.25

Flexible connecting cord with plug contacts, if ordered separately 1.25



Inspector's Style Weston Standard Portable Alternating and Direct Current Voltmeters with Adapters.



No. 7985.

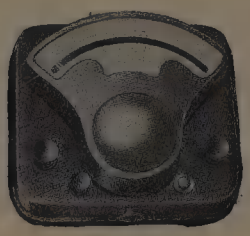
VOLTMETERS, Portable (Continued).

G. E. Pocket Voltmeter, Type O and OS*, Direct and Alternating Current.

Compact and accurate instruments for general testing, and equally useful in the back connected style for small switchboards. They are of the Thomson inclined coil principle, dead beat, jewel mounted and protected by iron base and cover from stray magnetic fields. Dimensions, $4\frac{1}{4}$ x $3\frac{9}{16}$ x $2\frac{3}{8}$ inches. Black oxide finish; mahogany base.

		Volt Capacity.	List Price.
No.	7984	75	$30.00
,,	*44617	120	30.00
,,	7985	150	30.00
,,	*44618	175	30.00
,,	37942	300	35.00

* Made in back connected form only.



No. 3336.

Thomson Inclined Coil Portable Voltmeter, D. C. & A. C.

Made especially for alternating current work but may be used with good results on direct current circuits by taking reversed readings. Dead beat, jewel mounted, black oxide finish, mahogany base, and hard-wood carrying case with strap.

		Capacity in Volts.	List Price.
No.	3335	65	$50.00
,,	3336	130	50.00
,,	3344	300	50.00
,,	3337	600	50.00



Whitney H. W. Type.

Whitney Portable, H. W. Type Voltmeter, D. C. & A. C.

These instruments operate on the hot wire principle and are extremely accurate and dead beat. Size of average instrument is 6 x $6\frac{1}{2}$ x $3\frac{1}{2}$ inches. Weight, about 3 pounds net.

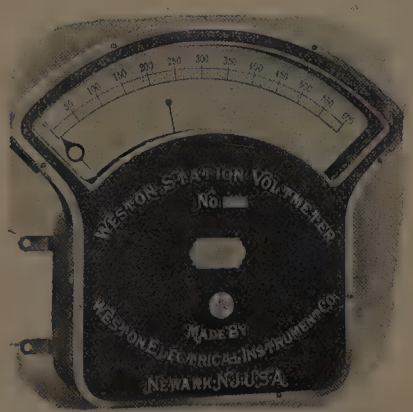
Price includes polished hard-wood carrying case with lock and handle for each instrument.

No.	801.	Range	.5 to	3	volts in	.02	volts	$45.00
,,	803.	,,	15 ,,	75	,, ,,	.5	,,	47.50
,,	805.	,,	30 ,,	150	,, ,,	1	,,	50.00
,,	807.	,,	60 ,,	300	,, ,,	2	,,	55.00
,,	809.	,,	100 ,,	600	,, ,,	5	,,	70.00
,,	815.	Double scale ranges		5 and 150		volts		52.50
,,	817.	,,	,, ,,	75 ,,	150	,,		55.00
,,	819.	,,	,, ,,	150 ,,	300	,,		60.00
,,	821.	,,	,, ,,	150 ,,	600	,,		75.00

VOLTMETERS, Switchboard.

Weston Illuminated-Dial Station Voltmeter, D. C., Model 11.

These instruments are free from "magnetic lag" and almost absolutely free from temperature error. They are dead beat and very reliable. For ranges up to 750 volts they have self-contained resistance, but for the higher ranges a separate multiplier is furnished to be fastened to the back of the board. They may be left continuously in circuit without appreciable inaccuracy.



Weston Illuminated-Dial Station Voltmeter, Model 11.

Volts.	Val. of Each Scale. Division in Volts.	Price.	Volts.	Val. of Each Scale. Division in Volts.	Price.
125	1	$75.00	3250	25	$140.00
150	1	76.00	3500	25	150.00
180	2	77.00	4000	50	160.00
250	2	78.00	4500	50	170.00
300	2	79.00	5000	50	180.00
600	5	80.00	6000	50	195.00
750	5	81.00	6500	50	205.00
1000	10	100.00	7000	50	210.00
1500	10	110.00	7500	50	220.00
2000	20	120.00	8000	100	230.00
2500	20	130.00	9000	100	250.00
3000	25	135.00	10000	100	275.00

These prices are for No. 2 finish, dead-black japan with nickel trimmings. For No. 3 finish, all nickel plated, add $4.50. In placing order please give style of lamp socket desired. These instruments will be supplied for mounting with the fronts flush with the switchboard (designated flush type) when so ordered, at the same prices.

VOLTMETERS, Switchboard (Continued).



Weston Round Pattern Model 57 Station Voltmeter.

Weston Round Pattern Station Voltmeter, Direct Current, Model 57 (Old Model F).

Expressly designed for switchboards on which an illuminated dial type is not required.

Cast-iron case, eliminating magnetic influences, dust proof.

Range in Volts.	Value of Each Scale Division in Volts.	Price.	Range in Volts.	Value of Each Scale Division in Volts.	Price.
3	0.02	$25.00	125	1	$28.25
6	0.05	25.00	150	1	29.50
15	0.1	25.00	250	2	31.50
25	0.2	26.00	300	2	32.50
50	0.5	26.50	600	5	35.00
75	0.5	27.25	750	5	37.00

These prices are for No. 2 finish, dead-black japan with nickel trimmings.

For No. 3 finish, all nickel plated, add $2.00.

No extra charge will be made for above instruments with back connection or flush-type cases. Always specify the style desired, when ordering.

Weston Round Pattern Station Voltmeter, Direct Current, Model 24 (Old Model K).

These small round pattern voltmeters have been expressly designed to meet the demand for good but low-priced instruments for use on switchboards such as are installed in connection with small plants for lighting and power, or for telegraph, telephone, and other service where small instruments fully cover all requirements. Furnished front connected, back connected, or flush types, as ordered.



Station Model 24 Direct-Current Voltmeter.

Range in Volts.	Value of Each Scale Division in Volts.	Price.
0– 3	.05	$15.50
0– 5	.1	15.50
0– 6	.1	15.75
0– 10	.2	16.00
0– 15	.2	16.00
0– 25	.5	16.00
0– 50	1	16.00
0– 80	2	16.00
0–130	2	16.50
0–150	2	17.00
0–250	5	19.50
0–300	5	20.50
0–600	8	26.50

Flush type supplied at the same prices if specially ordered.

The above prices are for No. 2 finish, dead-black japan with nickel trimmings. For No. 3 finish (all nickel plated), add $1.50.

VOLTMETERS, Switchboard (Continued).



R. R. Type (D. C.) Voltmeter.

Whitney R. R. Type Switchboard Voltmeter, Direct Current.

These regular round types of instruments operate on the d'Arsonval principle of a coil of wire rotating in the field of a permanent magnet. Diameter of case, 9⅜ in. Weight, about 13 lbs.

No. 1425.	Range,	0 to	15 volts,	in fifths	$24.00
,, 1429.	,,	0 ,,	150 ,,	,, twos	27.00
,, 1431.	,,	0 ,,	300 ,,	,, 2.5's	30.00
,, 1433.	,,	0 ,,	600 ,,	,, fives	34.00
,, 1435.	,,	0 ,,	750 ,,	,, tens	36.00

The above prices are for the standard finish (black with nickel trimmings). For all copper or nickel plated add $2.00.



I. P. Type (D. C.) Voltmeter.

Whitney I. P. Type Switchboard Voltmeter, Direct Current.

These isolated plant type meters contain the same general type of mechanisms used in the other direct current instruments, but built on a smaller scale. They may be said to be simply a small model of the R. R. type. Diameter of case, 7½ inches. Weight, about 7 lbs.

No. 1725.	Range,	0 to	15 volts,	in fifths	$15.50
,, 1727.	,,	0 ,,	100 ,,	,, units	16.00
,, 1729.	,,	0 ,,	150 ,,	,, twos	16.50
,, 1731.	,,	0 ,,	300 ,,	,, 2.5's	18.00
,, 1733.	,,	0 ,,	600 ,,	,, fives	21.00

The above prices are for the standard finish (black with nickel trimmings). For all nickel or copper plated add $2.00 to list price.



R. R. Type (A. C.) Voltmeter.

Whitney R. R. Type Switchboard Voltmeter, Alternating Current.

These instruments operate on the same hot-wire principle as the portable voltmeters above. Diameter of case, 9⅜ in. Average weight, 13 lbs.

No. 6003.	Range,	15 to	75 volts		$27.00
,, 6005.	,,	30 ,,	150 ,,		27.00
,, 6007.	,,	60 ,,	300 ,,		30.00
,, 6009.	,,	100 ,,	600 ,,		34.00
,, 6011.	,,	150 ,,	750 ,,		36.00

The above prices are for the standard finish (black with nickel trimmings). For all nickel or copper plated add $2.00 to list price.



I. P. Type Voltmeter.

Whitney I. P. Type Switchboard Voltmeter, Alternating Current.

The movements are similar to those in the other hot-wire instruments, but the aluminum disc and drag magnet for additional damping purposes are omitted. Diameter, 7½ in. Average weight, 7 lbs.

No. 7003.	Range,	15 to	75 volts		$16.00
,, 7005.	,,	30 ,,	150 ,,		16.50
,, 7007.	,,	60 ,,	300 ,,		18.00

Other ranges to order.

The above prices are for standard finish (black with nickel trimmings). For all nickel or copper plated add $2 00 list per instrument.

VOLTMETERS, Switchboard (Continued).



Style A.

Style A Norton Direct Current Voltmeter.

Diameter, 6⅞ inches; depth, 2 13/16 inches.
Made for either back or front connections.
Finish, lacquered brass.

Range	0 to	5 V.	each,	$30.00	Range	0 to 75 V.	each, $30.00
,,	0 ,,	10 ,,	,,	30.00	,,	0 ,, 150 ,,	,, 30.00
,,	0 ,,	15 ,,	,,	30.00	,,	0 ,, 250 ,,	,, 33.00
,,	0 ,,	25 ,,	,,	30.00	,,	0 ,, 300 ,,	,, 34.00
,,	0 ,,	50 ,,	,,	30.00	,,	0 ,, 600 ,,	,, 40.00



Style B.

Style B Norton Direct Current Voltmeter.

Diameter, 6⅞ inches; depth, 2 13/16 inches.
Made only in back connections.
Finish, oxidized black.

Range	0 to	5 V.	each,	$30.00	Range	0 to 75 V.	each, $30.00
,,	0 ,,	10 ,,	,,	30.00	,,	0 ,, 150 ,,	,, 30.00
,,	0 ,,	15 ,,	,,	30.00	,,	0 ,, 250 ,,	,, 33.00
,,	0 ,,	25 ,,	,,	30.00	,,	0 ,, 300 ,,	,, 34.00
,,	0 ,,	50 ,,	,,	30.00	,,	0 ,, 600 ,,	,, 40.00

Style C Norton Direct Current Voltmeter.

Diameter, 7¼ inches; depth, 3¾ inches.
Made for either back or front connections.
Finish, enameled black, nickel trimmings.

Range	0 to	5 V.	each,	$30.00	Range	0 to 75 V.	each, $30.00
,,	0 ,,	10 ,,	,,	30.00	,,	0 ,, 150 ,,	,, 30.00
,,	0 ,,	15 ,,	,,	30.00	,,	0 ,, 250 ,,	,, 33.00
,,	0 ,,	25 ,,	,,	30.00	,,	0 ,, 300 ,,	,, 34.00
,,	0 ,,	50 ,,	,,	30.00	,,	0 ,, 600 ,,	,, 40.00



Style C.

Style C Norton Alternating Current Voltmeter.

Unless specified, instruments will be furnished for 7,200 alternation circuits.
Diameter, 7¼ inches; depth, 3¾ inches.
Made for either back or front connections.
Finish, enameled black, nickel trimmings.

Range	0 to	75 V.	each,	$30.00	Range	0 to 300 V.	each, $34.00
,,	0 ,,	150 ,,	,,	30.00	,,	0 ,, 600 ,,	,, 40.00
,,	0 ,,	250 ,,	,,	33.00			

Style D Norton Direct Current Voltmeter.

Diameter, 9⅝ inches; depth, 4⅜ inches.
Made for either back or front connections.
Finish, enameled black, nickel trimmings.

Range	0 to	5 V.	each,	$40.00	Range	0 to 75 V.	each, $40.00
,,	0 ,,	10 ,,	,,	40.00	,,	0 ,, 150 ,,	,, 40.00
,,	0 ,,	15 ,,	,,	40.00	,,	0 ,, 250 ,,	,, 43.00
,,	0 ,,	25 ,,	,,	40.00	,,	0 ,, 300 ,,	,, 44.00
,,	0 ,,	50 ,,	,,	40.00	,,	0 ,, 600 ,,	,, 50.00



Style D.

Style D Norton Alternating Current Voltmeter.

Unless specified, instruments will be furnished for 7,200 alternation circuits.
Diameter, 9⅝ inches; depth, 4⅜ inches.
Made for either back or front connections.
Finish, enameled black, nickel trimmings.

Range	0 to	75 V.	each,	$40.00	Range	0 to 300 V.	each, $44.00
,,	0 ,,	150 ,,	,,	40.00	,,	0 ,, 600 ,,	,, 50.00
,,	0 ,,	250 ,,	,,	43.00			

VOLTMETERS, Recording, Alternating Current.

Bristol's (8-In. Chart).

Alternating current voltmeters in this list are designed to be used on circuits where the voltage does not exceed 800 volts.

Potential transformers are necessary with recording voltmeters for alternating current where voltage exceeds 800 volts.



Bristol's Voltmeter.

Cat. No.	Chart No.	Graduations in Volts.	Working Range in Volts.	Total Scale in Volts.	One Revolution of Chart.	List Price.
15233	103	1 above 40	20 to 55	0 to 60	24 hours	$60.00
15201	216	1 " 50	20 " 65	0 " 70	24 "	60.00
15202	208	1 " 50	20 " 65	0 " 70	1 hour	60.00
15235	125	2 " 80	30 " 110	0 " 120	24 hours	60.00
15246	131	2 " 90	40 " 120	0 " 130	7 days	60.00
15238	127	2 " 90	40 " 120	0 " 130	24 hours	60.00
15205	218	2 " 90	40 " 120	0 " 130	12 "	60.00
15240	128	2 " 100	40 " 130	0 " 140	24 "	60.00
15241	129	2 " 100	40 " 130	0 " 140	1 hour	60.00
15256	138	2 " 100	40 " 140	0 " 150	24 hours	60.00
15244	130	2 " 120	40 " 170	0 " 180	24 "	60.00
15247	132	5 " 125	50 " 210	0 " 230	24 "	60.00
15207	121	5 " 175	50 " 230	0 " 250	24 "	60.00
15208	219	5 " 175	75 " 250	0 " 275	24 "	60.00
15210	119	5 " 200	100 " 260	0 " 280	1 hour	60.00
15211	117	5 " 175	75 " 260	0 " 280	15 minutes	60.00
15212	118	5 " 200	75 " 275	0 " 300	24 hours	60.00
15213	107	5 " 200	100 " 275	0 " 300	12 "	60.00
15214	116	5 " 225	100 " 300	0 " 325	24 "	60.00
15225	122	5 " 250	100 " 325	0 " 350	24 "	60.00
15215	207	10 " 250	150 " 420	0 " 450	24 "	60.00
15216	221	10 " 350	100 " 450	0 " 500	24 "	60.00
15217	108	10 " 400	200 " 550	0 " 600	24 "	60.00
15222	109	10 " 400	200 " 550	0 " 600	12 "	60.00
15250	134	10 " 450	200 " 600	0 " 650	24 "	60.00
15236	126	10 " 500	200 " 650	0 " 700	7 days	60.00
15255	137	10 " 500	200 " 650	0 " 700	12 hours	60.00
15226	176	10 " 450	200 " 700	0 " 750	24 "	65.00
15252	135	10 " 450	200 " 700	0 " 750	1 hour	65.00
15219	112	20 " 500	300 " 720	0 " 800	24 hours	65.00
15239	183	1 " 10	10 " 45	0 " 50	24 "	60.00
15243	184	2 " 20	20 " 90	0 " 100	24 "	60.00
15245	185	1	80 " 110	80 " 115	24 "	65.00
15253	188	1	110 " 140	110 " 150	24 "	65.00

For High Voltages.

Prices include, with each voltmeter, padlock and key, one hundred charts, and a bottle of special recording instrument ink.

Price of potential transformer on application.

Cat. No.	Chart No.	Graduations in Volts.	Working Range in Volts.	Total Scale in Volts.	One Revolution of Chart.	Price without Transformer.
15626	176	10 above 450	200 to 700	0 to 750	24 hours	$60.00
15652	135	10 " 450	200 " 700	0 " 750	1 hour	60.00
15619	112	20 " 500	300 " 720	0 " 800	24 hours	60.00
15630	124	20 " 500	200 " 800	0 " 900	24 "	60.00
15601	214	20 " 900	400 " 1200	0 " 1300	24 "	60.00
15654	136	100 " 2500	1000 " 4000	0 " 4500	24 "	60.00
15602	139	200 " 500	2000 " 8000	0 " 9000	24 "	60.00

Damping device (extra net) $5.00
Aluminum case, 8-in. chart, reduced weight one half (extra net) 8.00
Carrying case for electrical instruments, single compartment (extra net) 6.00
Carrying case for electrical instruments, double compartment (extra net) 7.00
Special (8-in.) chart, graduated to order (extra net)..... 15.00
Additional charts, 8-in.....per 100, .75
Additional charts, 8-in. (copying ink)..... " .85
Special recording instrument ink (in bottles), one ounce, 25 cents; four ounces, 60 cents; half pint, $1.00; pint, $2.00; quart, $4.00.

VOLTMETERS, Recording, Direct Current.

Bristol's (8-In. Chart).

Above prices include, with each voltmeter, padlock and key, one hundred charts, and a bottle of special recording instrument ink.

Cat. No.	Chart No.	Graduations in Volts.	Working Range.	Total Scale.	One Rev. of Chart.	List Price.
15000	104	½ above 17	6 to 25 volts	0 to 27 volts	24 hours	$60.00
15001	103	1 " 40	20 " 55 "	0 " 60 "	24 "	60.00
15035	125	2 " 80	30 " 110 "	0 " 120 "	24 "	60.00
15046	131	2 " 90	40 " 120 "	0 " 130 "	7 days	60.00
15038	127	2 " 90	40 " 120 "	0 " 130 "	24 hours	60.00
15042	218	2 " 90	40 " 120 "	0 " 130 "	12 "	60.00
15040	128	2 " 100	40 " 130 "	0 " 140 "	24 "	60.00
15041	129	2 " 100	40 " 130 "	0 " 140 "	1 hour	60.00
15056	138	2 " 100	40 " 140 "	0 " 150 "	24 hours	60.00
15044	130	2 " 120	40 " 170 "	0 " 180 "	24 "	60.00
15047	132	5 " 125	50 " 210 "	0 " 230 "	24 "	60.00
15028	121	5 " 175	50 " 230 "	0 " 250 "	24 "	60.00
15037	219	5 " 175	75 " 250 "	0 " 275 "	24 "	60.00
15006	119	5 " 200	100 " 260 "	0 " 280 "	1 hour	60.00
15007	117	5 " 175	75 " 260 "	0 " 280 "	15 minutes	60.00
15009	118	5 " 200	75 " 275 "	0 " 300 "	24 hours	60.00
15008	107	5 " 200	100 " 275 "	0 " 300 "	12 "	60.00
15010	116	5 " 225	100 " 300 "	0 " 325 "	24 "	60.00
15027	122	5 " 250	100 " 325 "	0 " 350 "	24 "	60.00
15029	221	10 " 350	100 " 450 "	0 " 500 "	24 "	60.00
15011	108	10 " 400	200 " 550 "	0 " 600 "	24 "	60.00
15012	109	10 " 400	200 " 550 "	0 " 600 "	12 "	60.00
15050	134	10 " 450	200 " 600 "	0 " 650 "	24 "	60.00
15036	126	10 " 500	200 " 650 "	0 " 700 "	7 days	60.00
15055	137	10 " 500	200 " 650 "	0 " 700 "	12 hours	60.00
15025	176	10 " 450	200 " 700 "	0 " 750 "	24 "	65.00
15052	135	10 " 450	200 " 700 "	0 " 750 "	1 hour	65.00
15014	112	20 " 500	300 " 720 "	0 " 800 "	24 hours	65.00
15030	124	20 " 500	200 " 800 "	0 " 900 "	24 "	65.00
15015	114	50 " 1500	600 " 2200 "	0 " 2350 "	12 "	75.00
15054	136	100 " 2500	1000 " 4000 "	0 " 4500 "	24 "	85.00
15049	133	100 " 4000	1000 " 5500 "	0 " 6000 "	24 "	98.00
15023	174	1/10 " 1	1 " 4 "	0 " 5 "	24 "	60.00
15016	170	1/5 " 1	1 " 5 "	0 " 6 "	24 "	60.00
15017	173	½ " 3	2 " 16 "	0 " 18 "	24 "	60.00
15039	183	1 " 10	10 " 45 "	0 " 50 "	24 "	60.00
15020	180	2 " 10	10 " 70 "	0 " 80 "	24 "	60.00
15043	184	2 " 20	20 " 90 "	0 " 100 "	24 "	60.00
15026	181	2 " 90	30 " 120 "	0 " 130 "	24 "	60.00
15018	171	1/5	20 " 25 "	20 " 26 "	24 "	65.00
15057	189	1/5	18 " 28 "	18 " 30 "	24 "	65.00
15033	179	1	60 " 85 "	60 " 90 "	12 "	65.00
15034	182	1	60 " 85 "	60 " 90 "	1 hour	65.00
15045	185	1	80 " 110 "	80 " 115 "	24 hours	65.00
15019	172	1	100 " 130 "	100 " 135 "	24 "	65.00
15031	177	1	100 " 130 "	100 " 135 "	12 "	65.00
15032	178	1	100 " 130 "	100 " 135 "	1 hour	65.00
15051	187	1	90 " 130 "	90 " 140 "	24 hours	65.00
15053	188	1	110 " 140 "	110 " 150 "	24 "	65.00
15024	175	1	110 " 145 "	110 " 150 "	1 hour	65.00
15048	186	2	110 " 170 "	110 " 180 "	24 hours	65.00
15021	181	2 above 90	30 " 120 "	0 " 130 "	24 "	70.00
15022	120	½	−4 " +4 "	−5 " +5 "	24 "	65.00

VULCANIZED Fibre (see F).

WAFFLE Irons (see I).

WAITERS for Chafing Dishes (see Dish).

WALL Fixtures (see F).

WALL Plates (see Plates, bracket).

WALL Receptacle (see R).

WALL Sockets (see S).

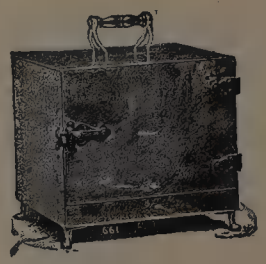
WARMERS.

Simplex Portable Plate Warmers.

Designed for use in dining-room or pantry or for private service in rooms at hotels, cafés, etc.

Heavy tin, polished brass trimmings, with handle at top.

	Watts.	Each.
No. 1661. Portable plate warmer, 12 x 12 x 20 in.....	300	$20.00



No. 1661.

Simplex Heaters for Hot Closets.

Where the plate warmer is to be built into the house in the form of a closet we can supply heaters to be put in by the local electrician.

For most cases "one heat" is preferred. Heaters are of grid form with porcelain supports, are sent with full directions, have binding posts, but no conducting cord or wires. Those listed with switches have controlling switches to be mounted outside of the closet.

	Watts.	Price.
No. 1664. Required space, 8 x 10 x 3 in. One heat. Capacity, 2 cu. ft.....	400	$5.00
No. 1665. Required space, 12 x 13 x 3 in. One heat. Capacity, 2 to 3 cu. ft.....	440	6.00
No. 1666. Same. Three heats with indicating snap switch.....	440	8.50
No. 1667. Required space, 12 x 16 x 3 in. One heat. Capacity, 4 to 5 cu. ft.....	550	6.50
No. 1668. Same. Three heats with indicating snap switch.....	550	9.00
No. 1669. Required space, 13 x 25 x 3 in. One heat. Capacity, 6 to 9 cu. ft.....	880	12.00
No. 1670. Same. Three heats with indicating snap switch.....	880	14.50
No. 1671. Required space, 12 x 32 x 3 in. One heat. Capacity, 10 to 12 cu. ft.....	1100	13.00
No. 1672. Same. Three heats with indicating snap switch.....	1100	16.00
No. 1673. Required space, 23 x 29 x 3 in. One heat. Capacity, 12 to 14 cu. ft.....	1200	15.00
No. 1674. Same. Three heats with indicating snap switch.....	1200	18.00

No. 451.

Simplex Nursery Milk Warmer.

A combination of a copper nickel plated vessel with a removable nickel plated tube heater, coiled in form to surround a Hygeia nursing bottle when placed in the vessel. Three minutes will raise temperature of the milk from 60° to 110° F.

No. 451. Milk warmer complete, with cord and plug to connect to lamp socket.....each, $6.50

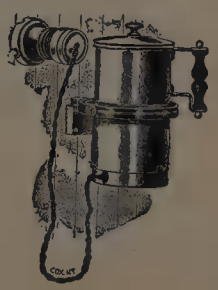


G. E. Milk Warmer.

G. E. Milk Warmer.

Adapted for heating the milk bottle, the neck of which extends through the cover. May also be used for boiling eggs, etc., which it will do from cold water in four minutes.

No. 42654.	300 watts,	95–105 volts.....	each,	$8.50
,, 42655.	300 ,,	106–115 ,, ...	,,	8.50
,, 39518.	300 ,,	116–125 ,, ...	,,	8.50
,, 42384.	300 ,,	200–225 ,, ...	,,	8.50
,, 42385.	300 ,,	226–250 ,, ...	,,	8.50



No. 1729.

Simplex Ship Food Warmer.

Made of heavy copper nickel plated, supported on gimbals with bracket. Food cup removable, and entire device may be instantly removed from the bracket socket. By using extra sockets one warmer may be used in any number of staterooms. Watts, 50.

No. 1729. Ship food warmer complete, with bracket..... $10.00



Register-Top Foot Warmer.

Simplex Foot Warmer.

Produces a little heat exactly where it is most wanted. Made of cast iron, finished in black japan, in two styles, solid top or register top, the latter being the more satisfactory for general use.

	Watts.	Price.
No. 1371. Solid top. Size, 9 x 10. Weight, 9½ lbs....	50	$5.00
,, 1373. Register top. One heat. Size, 9 x 12. Weight, 10 lbs.....200 or	400	6.00
No. 1375. Register top. Has three-heat connector switch. Size, 9 x 12. Wt., 10 lbs...Max.	400	7.50

WASHERS, Contact (see Springs, harp contact).

WASHERS, Iron.



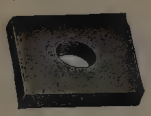
Round Washer.

Round Iron Washers.

Size.	Weight per 100.	List per 100 Lbs.
$\frac{1}{2}$-inch hole for $\frac{3}{8}$-inch carriage bolt	2.32 lbs.	$9.70
$\frac{9}{16}$ " " " $\frac{1}{2}$ " bolt	3.85 "	9.20
$\frac{11}{16}$ " " " $\frac{5}{8}$ " "	7.69 "	9.00
$\frac{13}{16}$ " " " $\frac{3}{4}$ " "	9.90 "	8.80

Square Iron Washers.

Size.	Wt. per 100.
2 x 2 x $\frac{1}{8}$ inch	14
2 x 2 x $\frac{3}{16}$ "	20
$2\frac{1}{4}$ x $2\frac{1}{4}$ x $\frac{3}{16}$ "	25
3 x 3 x $\frac{3}{16}$ "	45
4 x 4 x $\frac{3}{16}$ "	80
5 x 5 x $\frac{3}{16}$ "	125



Square Washer.

WASHERS, Leather.

Nail Heads or Leather Washers.

Leather washers to be used under nail heads to prevent cracking the porcelain in knob or cleat wiring. Put up in boxes of 1,000 each, weighing about one pound.

Leather nail heads ..... per 1,000, $ .75

WASHERS, Lock.



Leather Washer.

National Lock Washers.

$\frac{1}{4}$-inch National lock washers	per 1,000,	$8.00
$\frac{5}{16}$ " " "	"	9.00
$\frac{3}{8}$ " " "	"	10.00
$\frac{7}{16}$ " " "	"	11.00
$\frac{1}{2}$ " " "	"	12.00
$\frac{5}{8}$ " " "	"	13.50
$\frac{3}{4}$ " " "	"	15.00
$\frac{7}{8}$ " " "	"	17.00
1 " " "	"	22.00
$1\frac{1}{8}$ " " "	"	26.00
$1\frac{1}{4}$ " " "	"	30.00
$1\frac{3}{8}$ " " "	"	34.00
$1\frac{1}{2}$ " " "	"	38.00
$1\frac{5}{8}$ " " "	"	44.00
$1\frac{3}{4}$ " " "	"	48.00
$1\frac{7}{8}$ " " "	"	52.00
2 " " "	"	56.00



National Lock Washer.

Positive Lock Washers.

$\frac{1}{4}$ in.–$\frac{1}{8}$ in.	x $\frac{1}{16}$ in.	per M.,	$7.50		
$\frac{1}{4}$ " – $\frac{1}{8}$ "	x $\frac{3}{32}$ "	"	7.70		
$\frac{5}{16}$ " – $\frac{1}{8}$ "	x $\frac{1}{16}$ "	"	7.70		
$\frac{5}{16}$ " – $\frac{3}{16}$ "	x $\frac{1}{16}$ "	"	7.70		
$\frac{3}{8}$ " – $\frac{3}{16}$ "	x $\frac{1}{16}$ "	"	7.70		
$\frac{3}{8}$ " – $\frac{3}{16}$ "	x $\frac{1}{8}$ "	"	7.70		
$\frac{3}{8}$ " – $\frac{7}{32}$ "	x $\frac{5}{64}$ "	"	7.80		
$\frac{3}{8}$ " – $\frac{1}{4}$ "	x $\frac{3}{32}$ "	"	8.00		
$\frac{7}{16}$ " – $\frac{3}{16}$ "	x $\frac{1}{8}$ "	"	8.10		
$\frac{7}{16}$ " – $\frac{7}{32}$ "	x $\frac{5}{64}$ "	"	7.80		
$\frac{1}{2}$ " – $\frac{3}{16}$ "	x $\frac{1}{8}$ "	"	8.10		
$\frac{1}{2}$ " – $\frac{1}{4}$ "	x $\frac{1}{8}$ "	"	8.30		
$\frac{9}{16}$ in.–$\frac{3}{16}$ in.	x $\frac{1}{8}$ in.	per M.,	$8.10		
$\frac{9}{16}$ " – $\frac{1}{4}$ "	x $\frac{1}{8}$ "	"	8.40		
$\frac{5}{8}$ " – $\frac{1}{4}$ "	x $\frac{3}{32}$ "	"	8.50		
$\frac{5}{8}$ " – $\frac{1}{4}$ "	x $\frac{1}{8}$ "	"	8.50		
$\frac{5}{8}$ " – $\frac{1}{4}$ "	x $\frac{3}{16}$ "	"	8.40		
$\frac{3}{4}$ " – $\frac{1}{4}$ "	x $\frac{3}{16}$ "	"	8.70		
$\frac{3}{4}$ " – $\frac{5}{16}$ "	x $\frac{3}{16}$ "	"	9.20		
$\frac{7}{8}$ " – $\frac{5}{16}$ "	x $\frac{3}{16}$ "	"	10.00		
$\frac{7}{8}$ " – $\frac{5}{16}$ "	x $\frac{1}{4}$ "	"	10.12		
1 " – $\frac{3}{8}$ "	x $\frac{3}{16}$ "	"	12.00		
1 " – $\frac{3}{8}$ "	x $\frac{1}{4}$ "	"	13.60		



Positive Lock Washer.

WASTE.

Cotton Waste.

White.

No. 1 white waste	per lb.,	$ .16½
" 2 " "	"	.15½
" 3 " "	"	.15

Colored.

No. 1 colored waste	per lb.,	$ .12
" 2 " "	"	.11
" 3 " "	"	.10



Waste.

WATCH Case Buzzer (see B).

WATCH Case Receiver (see Telephone).

WATCH Clock (see Clock).

WATCHMAN'S Key (see Pushes).

WATERPROOF Receptacles (see Globes).



Standard No. 5 Wheel.



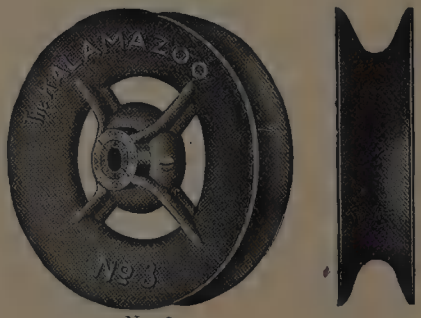
No. 6 Wheel.



No. 1.



No. 2.



No. 3.



No. 4.

WATERPROOF Sockets (see S).
WATT Meters (see Meters).
WAX Pots (see P).
WEATHERPROOF Globes (see G).
WEATHERPROOF Wire (see W).

WHEELS, Trolley.

Rochester Trolley Wheels.

A wheel of the highest grade, made on a new principle, namely: that in order to prevent the excessive arcing on the sides of the groove of the wheel it is necessary to keep the wire bearing against the *bottom* of the groove and to prevent it riding up on the sides.

With this end in view this wheel has been developed, with a groove cast in the rim in such a manner that the rim slightly overhangs the sides of groove, which latter is finished on the bottom only. As a result it is impossible for the wire to bear on any other portion of the groove than that prepared for it, and as a consequence arcing is prevented and even wear is assured. The hub is hollow and is packed with felt to keep the oil from running out and also to prevent any grit (due to sand from the core used in casting) working into the bearing, making a longer lived bearing.

	Outside Diam. In.	Inside Diam. In.	Hub. In.	Hole. In.	Weight. Lb.	Oz.	Each.
No. 5. Rochester wheel,	4⅜	3	1½	½	2	1	$1.64
,, 5. ,, sleet..	4	2½	1½	½	1	5	1.20
,, 6. ,, wheel.	6¼	4⅞	1½	⅝	4	2	2.90
,, 6. ,, sleet..	4¾	3¼	1½	⅝	1	14	1.40
,, 4. H. & M. wheel ..	4¾	3⅛	1¼	1⅛	3	4	1.86
,, 4. ,, sleet wheel	4⅞	3¼	1¼	1⅛	2	3	1.46

No. 5 is the standard wheel to fit regular harps.

Kalamazoo Trolley Wheels.

A wheel of extraordinary durability, designed of material which will not cause injury or wear upon the overhead wire. No scrap metal used. Oiling device insures thorough lubrication.

No. 1 Wheel.
"V" groove. Weight of wheel, 3¾ lbs.
Diameter, 6 inches.
Width, 1⅜ inches.
Depth of groove, ¾ inch.
Length of hub, 1½ inches.
Graphite bushing for ⅝-inch pin.
No. 1. Kalamazoo wheel.....each, $3.10

No. 2 Wheel.
"U" groove. Weight of wheel, 3¾ lbs.
Diameter, 6 inches.
Width, 1¾ inches.
Depth of groove, ¾ inch.
Length of hub, 1½ inches.
Graphite bushing for ⅝-inch pin.
No. 2. Kalamazoo wheel.....each, $3.10

No. 3 Wheel.
Deep groove. Weight of wheel, 3¾ lbs.
Diameter, 6 inches.
Width, 1½ inches.
Depth of groove, 1 inch.
Length of hub, 1½ inches.
Graphite bushing for ⅝-inch pin.
No. 3. Kalamazoo wheel.....each, $3.10

No. 4 Wheel.
Extra wide groove. Long hub.
Weight of wheel, 4½ lbs.
Diameter, 6 inches.
Width, 1⅞ inches.
Depth of groove, 1 inch.
Length of hub, 2 inches.
Graphite bushing for ⅝-inch pin.
No. 4. Kalamazoo wheel.....each, $3.90



No. 5.



No. 7.



No. 8.



No. 9.



No. 14.



No. 15.

WHEELS, Trolley.

Kalamazoo Trolley Wheels (Continued)

No. 5 Wheel.

"V" groove. Weight of wheel, 2¾ lbs.
Diameter, 5 inches.
Width, 1⅜ inches.
Depth of groove, ¾ inch.
Length of hub, 1½ inches.
Graphite bushing for ½-inch pin.
No. 5. Kalamazoo wheel ..... each, $2.40

No. 7 Wheel (will fit any standard harp).

Standard "U" groove.
Weight of wheel, 2 lbs.
Diameter, 4 inches.
Width, 1⅜ inches.
Depth of groove, ¾ inch.
Length of hub, 1½ inches.
Graphite bushing for ½-inch pin.
No. 7. Kalamazoo wheel ..... each, $1.70

No. 8 Wheel (will fit any standard harp).

Standard "V" groove.
Weight of wheel, 2 lbs.
Diameter, 4 inches.
Width, 1⅜ inches.
Depth of groove, ¾ inch.
Length of hub, 1½ inches.
Graphite bushing for ½-inch pin.
No. 8. Kalamazoo wheel ..... each, $1.70

No. 9 Wheel.

Extra deep groove.
Weight of wheel, 2 lbs.
Diameter, 4 inches.
Width, 1⅜ inches.
Depth of groove, ⅞ inch.
Length of hub, 1½ inches.
Graphite bushing for ½-inch pin.
No. 9. Kalamazoo wheel ..... each, $1.70

No. 14 Wheel.

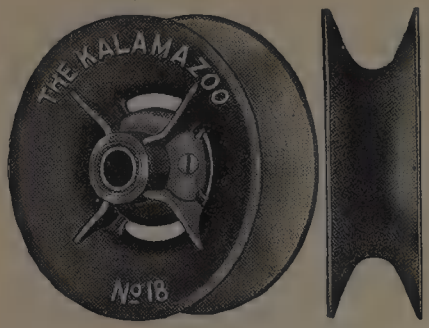
With or without graphite bushing.
Weight of wheel, 4 lbs.
Diameter, 6 inches.
Width, 1⅝ inches.
Depth of groove, ⅞ inch.
Length of hub, 2 inches.
Graphite bushing.
No. 14. Kalamazoo wheel ..... each, $3.90

No. 15 Wheel.

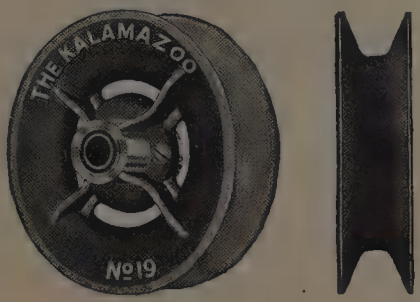
"U" groove. Weight of wheel, 2¾ lbs.
Diameter, 5 inches.
Width, 1⅜ inches.
Depth of groove, ¾ inch.
Length of hub, 1½ inches.
Graphite bushing for ½-inch pin.
No. 15. Kalamazoo wheel ..... each, $2.40



No. 17.



No. 18.



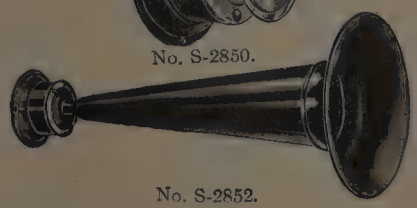
No. 19.



No. 22.



No. S-2850.



No. S-2852.

WHEELS, Trolley.

Kalamazoo Trolley Wheels (Continued).

No. 17 Wheel.
Medium size, without oil chamber.
Weight, 3¾ lbs.
Diameter, 5¾ inches.
Width, 1⅝ inches.
Depth of groove, ⅞ inch.
Length of hub, 2 inches.
Graphite bushing for ⅝-inch pin.
No. 17. Kalamazoo wheel.....each, $3.90

No. 18 Wheel.
Extremely large groove.
Weight of wheel, 5 lbs.
Diameter, 6 inches.
Width, 2 inches.
Depth of groove, 1¼ inches.
Length of hub, 2 inches.
Graphite bushing for ¾-inch pin.
No. 18. Kalamazoo wheel.....each, $3 90

No. 19 Wheel.
Medium size, with oil chamber.
Weight of wheel, 3¾ lbs.
Diameter, 5¾ inches.
Width, 1⅝ inches.
Depth of groove, ⅞ inch.
Length of hub, 2 inches.
Graphite bushing for ⅝-inch pin.
No. 19. Kalamazoo wheel.....each, $3.90

No. 22 Wheel.
Weight of wheel, 5 lbs.
Diameter, 6 inches.
Width, 1⅜ inches.
Depth of groove, ¾ inch.
Length of hub, 2 inches.
Graphite bushing for ⅝-inch pin.
No. 22. Kalamazoo wheel.....each, $3.90

WHISTLES (see Tube, speaking).

WHISTLES, Conductors'.

Conductor's Whistle.

Conductor's celluloid whistles.....per doz., $3.00

WHISTLES, Electric.

Treco "Electric" Whistle.

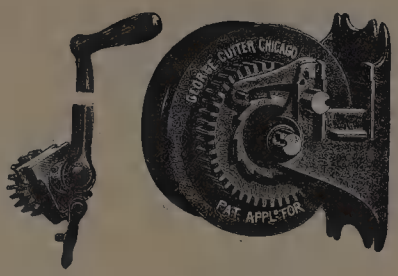
May be used on automobiles or boats, in noisy factories, or anywhere that a distinct and penetrating alarm is needed. Can be heard farther than any bell. May be adjusted to different tones.

Two or more may be wired in multiple and connected to one horn, making an ideal alarm for automobile or power boat, with push button on wheel or any convenient place. Gives quicker and more powerful action than pneumatic horn. Ordinary automobile horn may be used. Made in two styles, for horn or with mouthpiece.

No. S-2850. Treco whistle with mouthpiece, each, $1.00
No. S-2851. Treco whistle arranged for horn (without horn).....each, 1.00
No. S-2852. Treco whistle with horn as shown, each, 1.50

WHITE'S Adjustable Holders (see Fixtures).

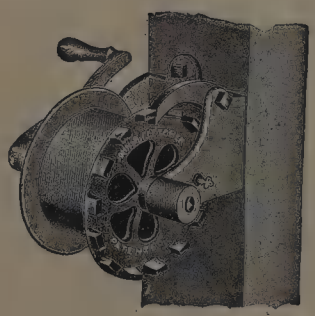
WILKES' Pole Finding Paper (see P).



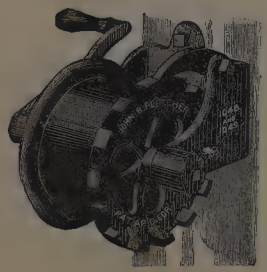
Cutter's Combination Windlass.



Cutter's Wall Windlass.



No. 1042.



No. 1048.



No. 1046.

WINDLASS.

Cutter's Combination Windlass.

Can be used either as a plain or as a geared windlass, at the option of the trimmer. He can use it as a plain windlass to lower the lamp quickly, and then use the gearing to raise the lamp. The pinion is detachable and is fastened to the light handle, so that a single pinion will answer for any number of windlasses. This feature secures the extra leverage of the gearing without the usual extra cost.

The locking can be operated only by the pinion handle, so that the device is guarded against tampering. The drum will hold 60 feet of $\frac{1}{4}$-inch wire cable, or 40 feet of $\frac{3}{8}$-inch Banner Core rope.

No. S-2855. Combination windlass, without handle.....net each, $2.25
No. S-2856. Pinion handle..... ,, ,, .90

Cutter's Wall Windlass.

No. S-2860. Similar to the above, but with side lugs for attaching to walls, square or hexagonal poles, or other flat surfaces.....net each, $2.45

The Fletcher Safety Windlass.

Square Pole Type.

A flat back windlass designed especially for use on square poles. Cannot be used on walls as the handle will interfere.

No. 1042. Windlass (takes 35 ft. $\frac{1}{4}$-in. flexible iron cord).....each, $2.60
No. 1043. Windlass (takes 40 ft. $\frac{1}{2}$-in. rope), each, 3.00
No. 1050. Handle (or crank) for either of above windlasses.....each, .50

Octagon Type Pole.

This windlass is designed for octagon poles. The size of the facets must be given in order to secure a good fit.

No. 1044. Windlass (takes 35 ft. $\frac{1}{4}$-in. flexible iron cord).....each, $2.60
No. 1045. Windlass (takes 40 ft. $\frac{1}{2}$-in. rope), each, 3.00
No. 1050. Handle (or crank) for either of above windlasses.....each, .50

For Round Wood Poles.

No cumbersome padlock required. Windlass is safely locked by a key weighing less than half an ounce. Handle cannot slip off but may be easily removed.

No. 1048. Windlass (takes 35 ft. $\frac{1}{4}$-in. flexible iron cord).....each, $2.60
No. 1049. Windlass (takes 40 ft. $\frac{1}{2}$-in. rope), each, 3.00
No. 1050. Handle (or crank) for either of above windlasses.....each, .50

For Flat Walls.

Made especially to be placed against the flat wall of a building or in any position where it is necessary that the handle of the regular windlass should not interfere.

No. 1046. Wall windlass, takes 35 ft. $\frac{1}{4}$-in. flexible iron cord..... $2.60
No. 1047. Wall windlass, takes 40 ft. $\frac{1}{2}$-in. rope, 3.00
,, 1050. Handle (or crank) for either of above windlasses..... .50

WINDLASS.

The Fletcher Safety Windlass (Continued).

For Round Iron Poles, Split Clamp.

The outside of the pole should be calipered to insure a perfect fit.

The following numbers take 35 feet ¼-inch flexible cord.

To fit the following outside diameters:



No. 1136.

No. 1136.	For 4.5 inch pole	$3.50
,, 1137.	,, 5 ,, ,,	3.50
,, 1138.	,, 5.563 ,, ,,	3.50
,, 1139.	,, 6.625 ,, ,,	3.50
,, 1140.	,, 7.625 ,, ,,	3.50

The following numbers take 40 feet ½-inch rope, or 75 feet flexible iron cord.

To fit the following outside diameters:

No. 1144.	For 4.5 inch pole	$4.00
,, 1145.	,, 5 ,, ,,	4.00
,, 1146.	,, 5.563 ,, ,,	4.00
,, 1147.	,, 6.625 ,, ,,	4.00
,, 1148.	,, 7.625 ,, ,,	4.00
,, 1050.	Handle (or crank) for either of above windlasses	.50

WINDOW Cord (see Cord).
WINDOW Springs (see Springs).
WIRE Grip (see G).
WIRE (see following headings). (See also Cables Cords, Ropes, etc.)

Wire, Annunciator and Office.
,, Automobile (see Cables).
,, Brass (see Wire, binding).
,, Binding.
,, Copper, base, hard and soft.
,, Fish.
,, Fixture.
,, Flexible (see Wire, rubber covered).
,, German silver.
,, Guy (see Rope, wire).

Wire, Iron.
,, Lead covered (see Cables).
,, Magnet.
,, Platinum.
,, Phosphor bronze (see Wire binding),
,, Rubber covered.
,, Snake (see Wire, fish).
,, Steel (see Wire, binding).
,, Weatherproof.

WIRE, Annunciator and Office.

Annunciator and Office Wire.

In order to get the price of either annunciator or office wire in the different sizes, add the following amounts to the current *base price of drawn copper wire.*

This base price may be had at any time upon application but must not be confused with the *bar base* of copper. Prices are for lots of less than 25 pounds.

Lots of 25 to 100 pounds, deduct ½ cent per pound.



Annunciator Wire on Spool.

Annunciator Wire.

Put up on spools of about 7 pounds each, f. o. b. factory.

Nos. 15 and 16 B. & S., add to base price	per lb.,	$ .07
,, 17 ,, 18 ,, ,, ,, ,, ,,	,,	.08
,, 19 ,, 20 ,, ,, ,, ,, ,,	,,	.09
,, 21 ,, 22 ,, ,, ,, ,, ,,	,,	.11
,, 23 ,, 24 ,, ,, ,, ,, ,,	,,	.14
Add for Boston delivery	per 100 lbs.,	.05

Office Wire.

Put up on spools of about 8 pounds each, f. o. b. factory.

Nos. 11 and 12 B. & S., add to base price	per lb.,	$ .05
,, 13 ,, 14 ,, ,, ,, ,, ,,	,,	.06
,, 15 ,, 16 ,, ,, ,, ,, ,,	,,	.07
,, 17 ,, 18 ,, ,, ,, ,, ,,	,,	.08
,, 19 ,, 20 ,, ,, ,, ,, ,,	,,	.09
,, 21 ,, 22 ,, ,, ,, ,, ,,	,,	.11
Add for Boston delivery	per 100 lbs.,	.05

Extras.

Add the following net extras for either annunciator or office wire:

½-lb. coils, add	per lb.,	$ .02
1 ,, ,, ,,	,,	.01
2 ,, ,, ,,	,,	.00½
1 spools, add	,,	.02
2 ,, ,, ,,	,,	.02
Cabling, add	,,	.04
Twin or duplex, add	,,	.01
Tinned, add	,,	.02

WIRE, Automobile (see Cables).
WIRE, Brass (see Wire, Binding).

WIRE, Binding.

Tinned Steel Binding Wire.

For binding armatures, etc. Furnished in two grades. The standard size is No. 17 of the high carbon grade. Other sizes to order at short notice.

		High Carbon Grade.	Bessemer Grade.
No. 16. Iron wire gauge	per lb.,	$ .34	$ .16
,, 17. ,, ,, ,,	,,	.36	.16½
,, 18. ,, ,, ,,	,,	.38	.17
,, 19. ,, ,, ,,	,,	.40	.17½
,, 20. ,, ,, ,,	,,	.44	.18
,, 21. ,, ,, ,,	,,	.48	.19
,, 22. ,, ,, ,,	,,	.52	.20
,, 23. ,, ,, ,,	,,	.56	.22
,, 24. ,, ,, ,,	,,	.60	.24

Brass Binding Wire.

Prices are net for 100 lbs. or more of wire in coils in one order. Brown & Sharpe's gauge.

	Com. High Brass.	Low Brass.	Gilding, Bronze. Copper.
All Nos. to No. 10, inc.	$ .23	$ .27	$ .28
Above No. 10 to No. 16	.23½	.27½	.28½
No. 17	.24	.28	.32
,, 18	.24	.28	.32
,, 19	.25	.29	.33
,, 20	.25	.29	.33
,, 21	.26	.30	.34
,, 22	.27	.31	.35
,, 23	.28	.32	.36
,, 24	.30	.34	.38
,, 25	.32	.36	.40
,, 26	.35	.39	.43
,, 27	.38	.42	.46
,, 28	.42	.46	.51
,, 29	.45	.49	.54
,, 30	.48	.52	.62
,, 31	.51	.55	.67
,, 32	.55	.59	.73
,, 33	.59	.63	.82
,, 34	.64	.68	.95
,, 35	.70	.74	1.30
,, 36	.76	.80	1.50
,, 37	1.00	1.04	1.70
,, 38	1.30	1.34	2.00
,, 39	2.00	2.00	3.25
,, 40	2.60	2.60	5.75

Spring wire, 2 cents per pound advance.
Whitened wire, 3 cents per pound advance.
Flat, square, and half-round wire, 4 cents advance per pound on round wire, gauged the thin way after finishing. To determine the price of flat wire, add to price of wire measured the smallest way.
Fancy wire not less than 10 cents advance per pound on round wire.
Wire straightened and cut, No. 12 and smaller, 12 cents per pound additional. Same additions for cutting to length when under 2 feet as rods.
All wire between gauges takes price of next smaller gauge.
Wire in coils, 3 pounds and under, the same extras as spooling wire of the corresponding weights.

Spooling Wire. On 1, 2, 3, 4, 5, 6, 7, 8, 9, 10 pound spools.
At 12, 11, 10, 9, 8, 7, 6, 5, 4, 3 cents per pound.
Less than 1 pound spools, 24 cents per pound.

Phosphor Bronze Binding Wire.

For tinned wire add 5 cents to following list prices:
Brown & Sharpe's gauge.

No.	Diam.	Price per Lb.
To 10	.101890	$ .58
11 to 16	.050820	.60
17	.045257	.61
18	.040303	.61
19	.035890	.62
20	.031961	.62
21	.028462	.64
22	.025347	.66
23	.022571	.68
24	.020100	.70
25	.017900	.74
26	.015940	$ .78
27	.014195	.84
28	.012641	.90
29	.011257	1.00
30	.010025	1.10
31	.008928	1.25
32	.007950	1.50
33	.007080	1.75
34	.006304	2.00
35	.005614	2.50
36	.005000	3.25

WIRE, Copper (see Wire, rubber covered).

Bare Copper Wire, Annealed.

No. 8 and larger	base price per lb.,	$
„ 9	$\frac{1}{8}$	cents per lb. advance over base.
„ 10	$\frac{1}{8}$	„ „ „ „ „
„ 11	$\frac{1}{4}$	„ „ „ „ „
„ 12	$\frac{1}{4}$	„ „ „ „ „
„ 13	$\frac{1}{2}$	„ „ „ „ „
„ 14	$\frac{3}{4}$	„ „ „ „ „
„ 15	1	„ „ „ „ „
„ 16	$1\frac{1}{4}$	„ „ „ „ „
„ 17	$1\frac{1}{2}$	„ „ „ „ „
„ 18	2	„ „ „ „ „
„ 19	$2\frac{1}{4}$	„ „ „ „ „
„ 20	$2\frac{3}{4}$	„ „ „ „ „

Base price on application.

Bare Copper Wire, Hard Drawn.

Made to telephone and telegraph specifications.

Furnished in coils of ½- or 1-mile lengths, carefully wrapped for shipment.

Size.	Diameter in Mils.	Circular Mils.	Lbs. per 1,000 Ft.	Lbs. per Mile.
8 N. B. S.	.160	25600	77	409
10 „	.128	16384	50	262
12 „	.104	10816	33	173
14 „	.080	6400	19.4	102

Prices on application.



2-0 Round Trolley.

Copper Wire (Hard Drawn Trolley Wire).

Furnished round or grooved, in cross section.

These wires are furnished in mile lengths upon reels.

Reels charged at shipment and credited when returned in good condition less cost of transportation.



2-0 Grooved Trolley.

Size.	Diameter in Mils.	Circular Mils.	Lbs. per 1,000 Ft.	Lbs. per Mile.
0 B. & S.	324.86	105538	318.8	1684
2–0 „	364.80	133079	402.1	2123
3–0 „	409.64	167805	507.	2677
4–0 „	460.	211600	639.3	3376

Prices on application.

WIRE, Fish.

Fish Wire.

Oil tempered, flat steel fishing wire, *per pound* in coils of 50, 75, 100, 150 or 200 feet.

No. S-2861	$\frac{1}{8}$	in.,	.015	in. thick	(11 oz. per 100 ft.)	per lb., $ .80
„ S-2862	$\frac{1}{8}$*	„	.030	„ „	(1 lb. 4 „ „)	„ .55
„ S-2863	$\frac{3}{16}$	„	.030	„ „	(1 „ 14 „ „)	„ .55
„ S-2864	$\frac{1}{4}$	„	.030	„ „	(2 „ 8 „ „)	„ .55
„ S-2865	$\frac{5}{16}$	„	.035	„ „	(3 „ 8 „ „)	„ .50
„ S-2866	$\frac{3}{8}$	„	.035	„ „	(3 „ 12 „ „)	„ .50

* The size ⅛ x .030 is the standard generally used.

WIRE, Fixture (see Wire, rubber covered).



Fixture Wire.

Gas Fixture Wire.

Gas fixture wire on ½-pound spools.

Style A. Triple Wound and Paraffined.

No. 22, in yellow only	per lb.,	$1.80
„ 24, „ „ brown and white	„	2.00

Style B. 4-Wind, Inside Silk.

Made with quadruple winding, the inner of silk and the three outer layers of cotton.

No. 22, in yellow only	per lb.,	$2.20
„ 24, „ „ brown and white	„	2.40

Style C. 3-Wind, Outside Silk.

Made with three windings of cotton, which is then soaked with fireproof preparation and wound with silk.

No. 22, in gold only	per lb.,	$2.20
„ 24, „ „ and white	„	2.40

WIRE, Flexible (see Wire, rubber covered).

WIRE, German Silver (for resistances, see Table No. 4 at end of Catalogue).

Bare German Silver Wire.

As 18 per cent German silver is regarded as the standard in electrical work, we invariably forward this percentage upon orders that do not distinctly specify to the contrary.

Size.	Diam. in 1,000ths of an Inch.	18% Alloy.	30% Alloy.
0 to 16 B. & S. gauge	.0508	$ .78	$1.54
0 ,, 17 ,, ,,	.045	.78	1.54
0 ,, 18 ,, ,,	.040	.78	1.54
0 ,, 19 ,, ,,	.036	.80	1.56
0 ,, 20 ,, ,,	.032	.80	1.56
0 ,, 21 ,, ,,	.0285	.83	1.63
0 ,, 22 ,, ,,	.0253	.95	1.68
0 ,, 23 ,, ,,	.0226	.98	1.74
0 ,, 24 ,, ,,	.0201	1.03	1.81
0 ,, 25 ,, ,,	.0179	1.08	1.93
0 ,, 26 ,, ,,	0159	1.14	2.16
0 ,, 27 ,, ,,	.0142	1.25	2.30
0 ,, 28 ,, ,,	.0126	1.40	2.45
0 ,, 29 ,, ,,	.01125	1.55	2.60
0 ,, 30 ,, ,,	.010	1.75	2.75
0 ,, 31 ,, ,,	.009	1.95	2.90
0 ,, 32 ,, ,,	.008	2.35	3.05
0 ,, 33 ,, ,,	.0071	2.60	3.21
0 ,, 34 ,, ,,	.0063	2.95	3.56
0 ,, 35 ,, ,,	.0056	3.65	4.26
0 ,, 36 ,, ,,	.005	6.50	6.50
0 ,, 37 ,, ,,	.0045	11.50	11.50
0 ,, 38 ,, ,,	.004	18.00	18.00
0 ,, 39 ,, ,,	.00353	23.00	23.00
0 ,, 40 ,, ,,	.00314	30.00	30.00

Insulated German Silver Wire

(for resistances, see Table No. 4 at end of Catalogue).

All orders are executed with 18 per cent alloy unless plainly specifying otherwise.

	Cotton.		Silk.	
	Single.	Double.	Single.	Double.
No. 16. B. & S. gauge	$1.40	$1.70	$1.85	$2.38
,, 17. ,, ,,	1.40	1.70	1.85	2.38
,, 18. ,, ,,	1.40	1.70	1.85	2.38
,, 19. ,, ,,	1.40	1.70	1.85	2.38
,, 20. ,, ,,	1.42	1.74	1.88	2.43
,, 21. ,, ,,	1.44	1.75	1.93	2.48
,, 22. ,, ,,	1.52	1.83	2.06	2 64
,, 23. ,, ,,	1.62	1.98	2.21	2.87
,, 24. ,, ,,	1.71	2.09	2.37	3.08
,, 25. ,, ,,	1.84	2.26	2.65	3.48
,, 26. ,, ,,	2.05	2.48	3.02	3.93
,, 27. ,, ,,	2.25	2.73	3.23	4.20
,, 28. ,, ,,	2.45	2.98	3.42	4.43
,, 29. ,, ,,	2.60	3.13	3.85	5.00
,, 30. ,, ,,	2.84	3.38	4.14	5.33
,, 31. ,, ,,	3.09	3.66	4.52	5.81
,, 32. ,, ,,	3.59	4.21	4.94	6.23
,, 33. ,, ,,	3.96	4.64	5.46	6.89
,, 34. ,, ,,	4.61	5 44	5.84	7.29
,, 35. ,, ,,	5.01	5.69	7.52	9 45
,, 36. ,, ,,	8.09	8.88	10.00	11.75
,, 37. ,, ,,	13.00	13.75	18.50	22.00
,, 38. ,, ,,	24.00	27.00	28.00	33.00
,, 39. ,, ,,	27.00	30.00	30.00	40.00
,, 40. ,, ,,	30.00	33.00	45.00	50.00

WIRE, Guy (see Rope, wire).

WIRE, Iron.

Bare Iron Wire.

Sold only in full coils. Telephone and telegraph wire double galvanized.

Iron wire is numbered by "Stubbs" or "Birmingham" gauge, while copper wire is always "B. & S." gauge.

No. 9 Stubbs is a trifle larger than No. 7 B. & S.
,, 12 ,, ,, ,, smaller ,, ,, 9 ,,

An examination of Table No. 3 at end of Catalogue will show that a size of wire by Stubbs' gauge is approximately two sizes larger than B. & S. gauge.

Size. B. W. G.	Diameter.	Length of Coils.	Weight per Mile.	Resistance per Mile. Extra Best Best.	Best Best.	Steel.	Approximate Breaking Strain in Lbs. Ex. BB & BB.	Steel.
4	.238	¼ mile	787 lbs.	5.97 ohms	6.99	8.26	1968	2361
6	.203	¼ ,,	573 ,,	8.21 ,,	9.6	11.35	1433	1719
8	.165	½ ,,	378 ,,	12.42 ,,	14.53	17.18	945	1134
9	.148	½ ,,	305 ,,	15.44 ,,	18.06	21.35	762	915
10	.134	½ ,,	250 ,,	18.83 ,,	22.04	26.04	625	750
11	.120	½ ,,	200 ,,	23.48 ,,	27.48	32.47	500	600
12	.109	½ ,,	165 ,,	28.46 ,,	33.3	39.36	413	495
14	.083	½ ,,	96 ,,	49.08 ,,	57.44	67.88	240	288
16	.065	1 ,,	59 ,,	80.03 ,,	93.66	110.7	148	177

Prices on application.

Weatherproof Iron Wire.

Especially adapted for telephone and telegraph work where it is advisable to use an insulated iron wire to prevent leakage. Sold in full coils only.

Iron Wire Gauge.	Approximate Weights per Mile. Double Braid.	Triple Braid.	Length of Coils.
No. 4	860	940	¼ mile
,, 6	665	740	¼ ,,
,, 8	470	525	½ ,,
,, 9	400	450	½ ,,
,, 10	350	400	½ ,,
,, 12	225	260	½ ,,
,, 14	145	175	½ ,,

Prices on application.

WIRE, Magnet.

Magnet Wire (finer sizes).

Size.	Single Cotton.	Double Cotton.	Triple Cotton.	Single Silk.	Double Silk.	Triple Silk.	Two Covers. Silk & Cotton.
16	...	...	...	$ .80	$ .92	$1.16	
17	...	...	...	.82	.94	1.18	
18	...	...	...	.84	.96	1.20	
19	...	...	...	.86	.98	1.22	
20	$ .58	$ .64	$ .76	.88	1.00	1.24	$ .94
21	.60	.70	.90	.90	1.02	1.26	1.00
22	.62	.74	.98	.92	1.06	1.34	1.04
23	.65	.78	1.04	.96	1.12	1 44	1.09
24	.68	.84	1.16	1.02	1.22	1.62	1.18
25	.73	.92	1.30	1.10	1.36	1.88	1.29
26	.80	1.00	1.40	1.20	1.50	2.10	1.40
27	.86	1.10	1.58	1.30	1.66	2.38	1.54
28	.92	1.20	1.76	1.38	1.84	2.76	1.66
29	.98	1.30	1.94	1.48	2.12	3.40	1.80
30	1.02	1.42	2.22	1.60	2.56	4.48	2.00
31	1.12	1.54	2.38	1.76	3.08	5.72	2.18
32	1.24	1.64	2.44	1.98	3.40	6.24	2.38
33	1.44	1.88	2.76	2.24	4.00	7.52	2.68
34	1.64	2.20	3.32	2.54	4.60	8.72	3.10
35	1.86	2.50	3.78	2.88	5.00	9.24	3.52
36	2.12	3.00	4.76	3.40	5.60	10.00	4.28
37	2.70	4.30	7.50	4.20	6.60	11.40	5.80
38	3.60	5.70	9.90	4.90	7.40	12.40	7.00
39	4.70	7.20	12.20	6.20	9.00	14.60	8.70
40	6.00	9.00	15.00	8.00	10.80	16.40	11.00

.003 takes price of No. 40.

WIRE, Magnet (Continued).

Magnet Wire (larger sizes).

The larger sizes of magnet wire have no manufacturers' list, as have the finer wires, but vary with the base price of copper. In order to figure the cost add to the current base price of bare copper wire, the following net additions per 100 lbs.

	Round.				Square.	
	S. C. C.	D. C. C.	T. C. C.	Asbestos.	D. C. C.	T. C. C.
4–0 to 6	$3.00	$3.25	$4.25	$3.75	$4.25	$5.75
7	3.25	3.50	4.50	4.00	4.50	6.00
8	3.50	4.00	5.00	4.50	5.00	6.50
9	3.75	4.50	5.50	5.00	5.50	7.00
10	4.00	5.00	6.25	5.50	6.00	7.75
11	4.50	5.50	7.00		6.50	8.50
12	5.00	6.00	7.75		7.00	9.25
13	5.50	6.75	9.00		8.25	11.00
14	6.00	7.50	10.25		9.00	12.25
15	6.50	8.25	11.50			
16	7.00	9.00	12.75			
17	7.50	10 00	14.25			
18	8.25	11.00	15.75			
19	9.00	12.00	17.25			

WIRE, Platinum.

Platinum Wire.

Weight per foot of platinum wire in Troy ounces.

Published by courtesy of Baker & Company.

Size Dec. In.	Weight.	Size Dec. In.	Weight.	Size Dec. In.	Weight.	Size Dec. In.	Weight.
.001	.000104	.034	.12354	.076	.617333	.118	1.488187
.0015	.000270	.035	.13125	.077	.633791	.119	1.513625
.002	.000437	.036	.13854	.078	.650250	.120	1.539062
.0025	.00075	.037	.147166	.079	.667145	.121	1.564937
.003	.001062	.038	.155833	.080	.684020	.122	1.590791
.0035	.001395	.039	.164166	.081	.701333	.123	1.617083
.004	.001708	.040	.17250	.082	.718645	.124	1.643375
.0045	.002229	.041	.18052	.083	.736395	.125	1.670104
.005	.002750	.042	.188541	.084	.754125	.126	1.696833
.0055	.003333	.043	.19791	.085	.772312	.127	1.723979
.006	.003833	.044	.20691	.086	.790479	.128	1.751104
.0065	.004583	.045	.21666	.087	.809083	.129	1.778687
.007	.005333	.046	.22708	.088	.827666	.130	1.806270
.0075	.006083	.047	.23618	.089	.846687	.131	1.834270
.008	.006833	.048	.24625	.090	.865708	.132	1.862270
.0085	.007791	.049	.25672	.091	.885166	.133	1.890708
.009	.008750	.050	.26720	.092	.904625	.134	1.919125
.0095	.009729	.051	.27797	.093	.924500	.135	1.94800
.010	.0106875	052	.28900	.094	.944375	.136	1.976854
.011	.013041	.053	.300312	.095	.964687	.137	2.006145
.012	.015416	.054	.31164	.096	.98500	.138	2.035416
.013	.018166	.055	.323416	.097	1.00583	.139	2.065145
.014	.020937	.056	.335208	.098	1.02645	.140	2.094854
.015	.024166	.057	.347358	.099	1.04764	.141	2.125000
.016	.027354	.058	.359541	.100	1.06879	.142	2.155125
.017	.031041	.059	.372145	.101	1.09037	.143	2.185687
.018	.034625	.060	.384750	.102	1.11195	.144	2.21625
.019	.038750	.061	.397791	.103	1.13397	.145	2.24725
.020	.04275	.062	.410833	.104	1.15600	.146	2.27825
.021	.04725	.063	.424312	.105	1.17845	.147	2.30966
.022	.051729	.064	.437770	.106	1.200895	.148	2.34108
.023	.056666	.065	.451666	.107	1.22377	.149	2.372958
.024	.061666	.066	.46556	.108	1.246625	.150	2.404812
.025	.066916	.067	.47989	.109	1.26993	151	2.437083
.026	.072291	.068	.49420	.110	1.29325	.152	2.469354
027	.078020	.069	.50895	.111	1.31697	.153	2.502062
.028	.083791	.070	.52370	.112	1.340687	.154	2.534770
.029	.091666	.071	.53885	.113	1.364854	.155	2.567895
.030	.096187	.072	.55406	.114	1.38900	.156	2.601020
.031	.102812	.073	.56966	.115	1.413583	.157	2.634583
.032	.109437	.074	.58527	.116	1.438166	158	2.668145
.033	.11650	.075	.601312	.117	1.463189	.159	2.702145

Prices on application.

WIRE, Phosphor Bronze (See Wire, binding).

WIRE, Rubber Covered.



Solid Rubber Covered Wire.

Price per 1000 feet, single braid, white or black core.

Size. B. & S.	Bars. 10c.	11c.	12c.	13c.	14c.	15c.	16c.	Add for Double Braid.
0000	$371.00	$385.00	$398.00	$411.00	$425.00	$438.00	$451.00	No extra
000	312.00	323.00	334.00	344.00	355.00	365.00	376.00	No extra
00	261.00	270.00	278.00	287.00	295.00	303.00	312.00	No extra
0	187.00	194.00	200.00	207.00	213.00	219.00	226.00	No extra
1	147.00	152.00	158.00	163.00	168 00	173.00	178.00	$17.00
2	109.00	113.00	117.00	122.00	126.00	130.00	134.00	13.00
3	91.00	94.50	98.00	101.00	104.00	107.00	110 00	12.00
4	75.80	78.30	80.80	83.40	85.80	88.40	91.00	11.00
5	65.40	67.40	69.40	71.40	73.40	75.40	77.40	10.00
6	55.80	57.40	59.00	60.50	62.10	63.70	65.30	9.00
8	35.60	36.60	37.60	38.60	39.60	40.60	41.60	8.00
9	31.00	31.80	32.60	33.40	34.20	34.90	35.70	7.50
10	26.60	27.30	27.90	28.50	29.20	29.80	30.40	7.00
12	20.40	20.80	21.20	21.60	22.00	22.40	22.80	6.00
14	16.30	16.60	16.80	17.00	17.30	17.50	17.80	5.00

Size. B. & S.	Bars. 17c.	18c.	19c.	20c.	21c.	22c.	23c.	Add for Double Braid.
0000	$465.00	$478.00	$491.00	$505.00	$519.00	$532.00	$545.00	No extra
000	387.00	397.00	408.00	418.00	429.00	440.00	450.00	No extra
00	320.00	329.00	337.00	345.00	354.00	362.00	371.00	No extra
0	232.00	239.00	245.00	251.00	258.00	264.00	271.00	No extra
1	183.00	188.00	193.00	198.00	203.00	209.00	214.00	$17.00
2	138.00	142.00	146.00	150.00	154.00	158.00	163.00	13.00
3	114.00	117.00	120.00	123.00	126.50	130.00	133.00	12.00
4	93.40	96.00	98.50	101.00	103.50	106.00	108.60	11.00
5	79.40	81.40	83.40	85.40	87.40	89.40	91.40	10.00
6	66.90	68.40	70.00	71.60	73.20	74.80	76.30	9.00
8	42.60	43.60	44.60	45.60	46.60	47.60	48.60	8.00
9	36.50	37.30	38.00	38.80	39.60	40.40	41.20	7.50
10	31.10	31.70	32.40	33.00	33.70	34.30	34.90	7.00
12	23.20	23.60	24.00	24.40	24.80	25.20	25.60	6.00
14	18.00	18.30	18.50	18.80	19.10	19.30	19.50	5.00

Size. B. & S.	Bars. 24c.	25c.	26c.	27c.	28c.	29c.	30c.	Add for Double Braid.
0000	$559.00	$572.00	$585.00	$599.00	$612.00	$625.00	$639.00	No extra
000	461.00	471.00	482.00	493.00	503.00	514.00	524.00	No extra
00	379.00	387.00	396.00	404.00	413.00	421.00	429.00	No extra
0	277.00	283.00	290 00	296.00	303.00	309.00	315.00	No extra
1	219.00	224.00	229.00	234.00	239.00	244.00	249.00	$17.00
2	167.00	171.00	175.00	179.00	183.00	187.00	191.00	13.00
3	136.00	139.00	142.00	146.00	149.00	152.00	155.00	12.00
4	111.00	113.60	116.20	118.60	121.20	123.70	126.20	11.00
5	93.40	95.40	97.40	99.40	101.40	103.40	105.40	10.00
6	77.90	79.50	81.10	82.70	84.20	85.80	87.40	9.00
8	49.60	50.60	51.60	52.60	53.60	54.60	55.60	8.00
9	42.00	42.70	43.50	44.30	45.10	45.80	46.60	7.50
10	35.60	36.20	36.80	37.50	38.10	38.80	39.40	7.00
12	26.00	26.40	26.80	27.20	27.60	28.00	28.40	6.00
14	19.80	20.00	20.30	20.50	20.80	21.00	21.30	5.00

A tape and braid takes the same price as double braid.

A tape and two braids takes the same price as triple braid.

Wires No. 0 and larger, or having $\frac{3}{32}$ inch or thicker insulation, are finished with a tape and a braid; all others are finished with a braid only.

WIRE, Rubber Covered (Continued).

Weights and Dimensions of Rubber Covered Wire.

Size.	Solid. Diameter, Single Braid. Inches.	Solid. Weight per 1,000 Ft. in Lbs. Single Braid.	Solid. Weight per 1,000 Ft. in Lbs. Double Braid.	Stranded. Diameter, Single Braid. Inches.	Stranded. Weight per 1,000 Ft. in Lbs. Single Braid.	Stranded. Weight per 1,000 Ft. in Lbs. Double Braid.
18 B. & S.	.159	20	33			
16 ,,	.190	25	40	.196	28	43
14 ,,	.203	33	47	.212	35	50
12 ,,	.220	43	58	.231	46	63
10 ,,	.241	58	74	.255	63	81
8 ,,	.268	81	99	.285	86	107
6 ,,	.352	130	150	.374	139	162
5 ,,	.372	159	180	.396	165	189
4 ,,	.394	187	210	.422	197	221
3 ,,	.419	230	254	.450	240	265
2 ,,	.448	273	298	.512	289	316
1 ,,	.540	362	390	.587	381	410
0 ,,	.576	438	467	.626	464	493
00 ,,	.616	533	562	.669	563	595
000 ,,	.661	648	678	.721	683	716
0000 ,,	.711	794	827	.779	835	869
250000 C. M.				.873	1032	1095
300000 ,,				.932	1218	1283
350000 ,,				.976	1381	1449
400000 ,,				1.027	1548	1617
500000 ,,				1.113	1888	1958
600000 ,,				1.222	2275	2354
700000 ,,				1.294	2619	2707
750000 ,,				1.328	2791	2880
800000 ,,				1.360	2959	3051
900000 ,,				1.423	3295	3390
1000000 ,,				1.482	3624	3721
1250000 ,,				1.650	4496	4600
1500000 ,,				1.772	5319	5432
2000000 ,,				1.992	6958	7075

Solid Duplex Rubber Covered Wire.

Price per 1,000 feet, white or black core.

Bars.

No. B. & S.	10c.	11c.	12c.	13c.	14c.	15c.	16c.	17c.	18c.	19c.	20c.
8	$86.20	$88.20	$90.20	$92.20	$94.20	$96.20	$98.20	$100.20	$102.20	$104.20	$106.20
10	66.00	67.40	68.60	69.80	71.20	72.40	73.60	75.00	76.20	77.60	78.80
12	51.30	52.10	52.90	53.70	54.50	55.30	56.10	56.90	57.70	58.50	59.30
14	41.10	41.70	42.10	42.50	43.10	43.50	44.10	44.50	45.10	45.50	46.10

Bars.

No. B. & S.	21c.	22c.	23c.	24c.	25c.	26c.	27c.	28c.	29c.	30c.
8	$108.20	$110.20	$112.20	$114.20	$116.20	$118.20	$120.20	$122.20	$124.20	$126.20
10	80.20	81.40	82.60	84.00	85.20	86.40	87.80	89.00	90.40	91.60
12	60.10	60.90	61.70	62.50	63.30	64.10	64.90	65.70	66.50	67.30
14	46.70	47.10	47.50	48.10	48.50	49.10	49.50	50.10	50.50	51.10

WIRE, Rubber Covered (Continued).

Stranded Rubber Covered Wire.

Price per 1,000 feet, single braid, white or black core.

Size B. & S.	Bars. 10c.	11c.	12c.	13c.	14c.	15c.	16c.	Add for Double Braid.
0000	$371.00	$385.00	$398.00	$411.00	$425.00	$438.00	$451.00	No extra
000	312.00	323.00	334.00	344.00	355.00	365.00	376.00	No extra
00	261.00	270.00	278.00	287.00	295.00	303.00	312.00	No extra
0	220.00	227.00	234.00	240.00	247.00	254.00	260.00	No extra
1	170.00	176.00	181.00	186.00	191.00	197.00	202.00	$17.00
2	126.00	131.00	135.00	139.00	143.00	147.00	152.00	13.00
3	106.00	110.00	113.00	116.00	120.00	123.00	126.00	12.00
4	91.10	93.70	96.40	99.10	101.60	104.20	106.80	11.00
5	77.60	79.70	81.80	83.90	85.90	88.00	90.10	10.00
6	67.60	69.30	71.00	72.70	74.30	76.00	77.60	9.00
8	44.20	45.20	46.30	47.30	48.40	49.40	50.50	8.00
9	38.20	39.00	39.80	40.70	41.50	42.30	43.20	7.50
10	32.70	33.40	34.00	34.70	35.30	36.00	36.70	7.00
12	25.60	26.00	26.40	26.90	27.30	27.70	28.10	6.00
14	20.40	20.70	20.90	21.20	21.40	21.70	22.00	5.00

Size B. & S.	Bars. 17c.	18c.	19c.	20c.	21c.	22c.	23c.	Add for Double Braid.
0000	$465.00	$478.00	$491.00	$505.00	$519.00	$532.00	$545.00	No extra
000	387.00	397.00	408.00	418.00	429.00	440.00	450.00	No extra
00	320.00	329.00	337.00	345.00	354.00	362.00	371.00	No extra
0	267.00	274.00	280.00	287.00	294.00	301.00	307.00	No extra
1	207.00	212.00	218.00	223.00	229.00	234.00	239.00	$17.00
2	156.00	160.00	164.00	168.00	173.00	177.00	181.00	13.00
3	129.00	133.00	136.00	139.00	143.00	146.00	149.00	12.00
4	109.50	112.10	114.70	117.30	119.90	122.60	125.30	11.00
5	92.20	94.30	96.30	98.40	100.50	102.60	104.70	10.00
6	79.40	81.10	82.70	84.40	86.10	87 80	89.50	9.00
8	51.50	52.50	53.60	54.60	55.60	56.70	57.70	8.00
9	43.90	44.80	45.60	46.40	47.20	48.00	48.90	7.50
10	37.30	38.00	38.70	39.30	40.00	40.60	41.30	7.00
12	28.60	29.00	29.40	29.80	30.20	30.60	31.10	6.00
14	22.20	22.40	22.80	23.00	23.30	23.50	23.80	5.00

Size B. & S.	Bars. 24c.	25c.	26c.	27c.	28c.	29c.	30c.	Add for Double Braid.
0000	$559.00	$572.00	$585.00	$599.00	$612.00	$625.00	$639.00	No extra
000	461.00	471.00	482 00	493.00	503.00	514.00	524.00	No extra
00	379.00	387.00	396.00	404.00	413.00	421.00	429.00	No extra
0	314.00	321.00	327.00	334.00	341.00	347.00	354.00	No extra
1	244.00	250.00	255.00	260.00	265.00	271.00	276.00	$17.00
2	185.00	189.00	194.00	198.00	202.00	206.00	210.00	13.00
3	153.00	156.00	159.00	162.00	166.00	169.00	172.00	12.00
4	127.80	130.40	133.00	135.70	138.30	140.90	143.50	11.00
5	106.70	108.80	110.90	113.00	115.10	117.10	119.20	10.00
6	91.10	92.80	94.40	96.20	97.90	99.50	101.20	9.00
8	58.80	59.80	60.90	61.90	62.90	64.00	65.00	8.00
9	49.70	50.50	51.40	52.10	53.00	53.80	54.60	7.50
10	41.90	42 60	43.30	43.90	44.60	45.30	45.90	7.00
12	31.50	31.90	32.30	32.80	33.20	33.60	34.00	6.00
14	24.00	24.30	24.60	24.80	25.00	25.40	25.60	5.00

A tape and braid takes the same price as double braid.
A tape and two braids takes the same price as triple braid.
Wires No. 0 and larger, or having $\frac{3}{32}$ inch or thicker insulation, are finished with a tape and a braid; all others are finished with a braid only.

WIRE, Rubber Covered (Continued).

Rubber Covered Strands.

Price per 1,000 feet, white or black core.

Bars.

C. M.	10c.	11c.	12c.	13c.	14c.	15c.	16c.	Add for Each Extra Braid.
2000000	$2714.00	$2840.00	$2966.00	$3092.00	$3218.00	$3344.00	$3470.00	$69.00
1750000	2402.00	2512.00	2623.00	2733.00	2843.00	2953.00	3064.00	66.00
1500000	2095.00	2190.00	2284.00	2379.00	2473.00	2568.00	2662.00	62.00
1250000	1806.00	1885.00	1964.00	2042.00	2121.00	2200.00	2279.00	58.00
1000000	1450.00	1513.00	1576.00	1639.00	1732.00	1765.00	1828.00	52.00
950000	1387.00	1447.00	1507.00	1567.00	1626.00	1686.00	1746.00	51.00
900000	1322.00	1379.00	1435.00	1492.00	1549.00	1606.00	1662.00	50.00
850000	1260.00	1314.00	1367.00	1421.00	1474.00	1528.00	1581.00	49.00
800000	1195.00	1245.00	1296.00	1346.00	1397.00	1447.00	1497.00	48.00
750000	1129.00	1176.00	1224.00	1271.00	1318.00	1365.00	1413.00	47.00
700000	1066.00	1110.00	1154.00	1198.00	1242.00	1287.00	1331.00	46.00
650000	1001.00	1042.00	1083.00	1124.00	1165.00	1206.00	1247.00	45.00
600000	940.00	978.00	1016.00	1053.00	1091.00	1129.00	1167.00	44.00
550000	876.00	911.00	945.00	980.00	1015.00	1049.00	1084.00	43.00
500000	787.00	819.00	850.00	882.00	913.00	945.00	976.00	40.00
450000	718.00	746.00	775.00	803.00	831.00	860.00	888.00	38.00
400000	651.00	676.00	701.00	727.00	752.00	777.00	802.00	36.00
350000	583.00	605.00	627.00	649.00	671.00	693.00	715.00	34.00
300000	516.00	535.00	554.00	573.00	592.00	611.00	629.00	32.00
250000	448.00	464.00	480.00	495.00	511.00	527.00	543.00	30.00
225000	417.00	431.00	445.00	459.00	474.00	488.00	502.00	28.00

Bars.

C. M.	17c.	18c.	19c.	20c.	21c.	22c.	23c.	Add for Each Extra Braid.
2000000	$3596.00	$3722.00	$3848.00	$3974.00	$4100.00	$4226.00	$4352.00	$69.00
1750000	3174.00	3284.00	3324.00	3505.00	3615.00	3726.00	3836.00	66.00
1500000	2757.00	2851.00	2946.00	3040.00	3135.00	3229.00	3324.00	62.00
1250000	2357.00	2436.00	2515.00	2594.00	2673.00	2752.00	2830.00	58.00
1000000	1891.00	1954.00	2017.00	2080.00	2143.00	2206.00	2269.00	52.00
950000	1806.00	1866.00	1926.00	1986.00	2046.00	2106.00	2166.00	51.00
900000	1719.00	1776.00	1832.00	1889.00	1946.00	2002.00	2059.00	50.00
850000	1635.00	1688.00	1742.00	1796.00	1850.00	1903.00	1957.00	49.00
800000	1548.00	1598.00	1649.00	1699.00	1749.00	1800.00	1850.00	48.00
750000	1460.00	1507.00	1554.00	1602.00	1649.00	1697.00	1744.00	47.00
700000	1375.00	1419.00	1463.00	1507.00	1551.00	1595.00	1639.00	46.00
650000	1288.00	1329.00	1370.00	1411.00	1452.00	1493.00	1534.00	45.00
600000	1205.00	1242.00	1280.00	1318.00	1356.00	1394.00	1431.00	44.00
550000	1119.00	1153.00	1188.00	1223.00	1258.00	1292.00	1327.00	43.00
500000	1008.00	1039.00	1071.00	1102.00	1134.00	1165.00	1197.00	40.00
450000	917.00	945.00	973.00	1002.00	1030.00	1059.00	1087.00	38.00
400000	827.00	853.00	878.00	903.00	928.00	953.00	979.00	36.00
350000	737.00	759.00	782.00	804.00	826.00	848.00	870.00	34.00
300000	648.00	667.00	686.00	705.00	724.00	743.00	762.00	32.00
250000	558.00	574.00	590.00	606.00	622.00	638.00	653.00	30.00
225000	516.00	530.00	544.00	559.00	573.00	587.00	601.00	28.00

Bars.

C. M.	24c.	25c.	26c.	27c.	28c.	29c.	30c.	Add for Each Extra Braid.
2000000	$4478.00	$4604.00	$4730.00	$4856.00	$4982.00	$5108.00	$5234.00	$69.00
1750000	3946.00	4056.00	4167.00	4277.00	4387.00	4427.00	4608.00	66.00
1500000	3418.00	3513.00	3607.00	3702.00	3796.00	3891.00	3985.00	62.00
1250000	2909.00	2988.00	3067.00	3145.00	3224.00	3303.00	3382.00	58.00
1000000	2332.00	2395.00	2458.00	2521.00	2584.00	2647.00	2710.00	52.00
950000	2225.00	2285.00	2345.00	2405.00	2465.00	2525.00	2585.00	51.00

(Continued on next page.)

WIRE, Rubber Covered.

Rubber Covered Strands (Continued).

Price per 1,000 feet, white or black core.

Bars.

C. M.	24c.	25c.	26c.	27c.	28c.	29c.	30c.	Add for Each Extra Braid.
900000	$2116.00	$2173.00	$2229.00	$2286.00	$2343.00	$2399.00	$2456.00	$50.00
850000	2010.00	2064.00	2117.00	2171.00	2224.00	2278.00	2332.00	49.00
800000	1901.00	1951.00	2001.00	2052.00	2102.00	2153.00	2203.00	48.00
750000	1791.00	1838.00	1886.00	1933.00	1980.00	2027.00	2075.00	47.00
700000	1683.00	1728.00	1772.00	1816.00	1860.00	1904.00	1948.00	46.00
650000	1575.00	1616.00	1657.00	1698.00	1739.00	1780.00	1821.00	45.00
600000	1469.00	1507.00	1545.00	1583.00	1620.00	1658.00	1696.00	44.00
550000	1362.00	1396.00	1431.00	1466.00	1500.00	1535.00	1570.00	43.00
500000	1228.00	1260.00	1291.00	1323.00	1354.00	1386.00	1417.00	40.00
450000	1115.00	1144.00	1172.00	1201.00	1229.00	1257.00	1286.00	38.00
400000	1004.00	1029.00	1054.00	1079.00	1105.00	1130.00	1155.00	36.00
350000	892.00	914.00	936.00	958.00	980.00	1003.00	1025.00	34.00
300000	781.00	800.00	818.00	837.00	856.00	875.00	894.00	32.00
250000	669.00	685.00	701.00	716.00	732.00	748.00	764.00	30.00
225000	616.00	630.00	644.00	658.00	672.00	686.00	701.00	28.00

A tape and braid takes the same price as double braid.
A tape and two braids takes the same price as triple braid.

Extras for Fine Strands.

Any strand made of finer wires than given in the following table is considered flexible, and the list price of ordinary strand is increased by the following additions.

Size Strand C. M.	Size B. & S.	Addition.	Size Strand.	Size B. & S.	Addition.
2000000	12	$271.00	0000	16	$40.00
1750000	12	240.00	000	16	38.00
1500000	12	210.00	00	17	35.00
1250000	12	181.00	0	17	30.00
1000000	13	145.00	1	17	23.00
950000	13	139.00	2	17	18.00
900000	13	132.00	3	18	15.00
850000	13	126.00	4	18	12.30
800000	13	120.00	5	18	10.50
750000	13	113.00	6	19	9.20
700000	14	107.00	8	19	5.90
650000	14	100.00	9	20	5.10
600000	14	94.00	10	21	4.50
550000	14	88.00	12	23	3.50
500000	14	79.00	14	25	2.70
450000	15	72.00	16	30	2.40
400000	15	65.00	18	30	2.00
350000	15	58.00	19	30	1.90
300000	16	52.00	20	30	1.60
250000	16	45.00	22	30	1.50
225000	16	42.00			

Stranding and Size.

The following table gives the stranding and size of the *flexible* wires commonly used for switchboard, cable, dynamo leads, etc. They have braided outside finish and are suitable for 600-volt circuits or under.

Size.	Stranding.	Diam. of Rubber.	Size.	Stranding.	Diam. of Rubber.
4/0	133	49/64	5	49	23/64
3/0	133	22/32	6	49	21/64
2/0	133	41/64	8	49	17/64
1/0	133	19/32	10	19	15/64
1	133	17/32	12	19	13/64
2	133	15/32	14	19	6/32
3	49	14/32	16	19	9/64
4	49	25/64			

WIRE, Rubber Covered (Continued).

Solid Rubber Covered Fixture Wire.

Prices per 1,000 feet.

Heavy Insulation.

Size B. & S.	10c.	11c.	12c.	13c.	14c.	15c.	16c.	17c.	18c.	19c.	20c.	Add for Double Braid.
					Bars.							
14	$16.30	$16.60	$16.80	$17.00	$17.30	$17.50	$17.80	$18.00	$18.30	$18.50	$18.80	$5.00
16	13 20	13.40	13.50	13.70	13.80	14.00	14.20	14.30	14.50	14.60	14.80	4.00
18	11.50	11.60	11.70	11.80	11.90	12.00	12.10	12.20	12.30	12.40	12.50	3.80
19	10.60	10.70	10.80	10.80	10.90	11.00	11.10	11.20	11.20	11.30	11.40	3.60
20	9 70	9.80	9.80	9.90	10.00	10.00	10.10	10.10	10.20	10.30	10.30	3.40
22	8.80	8.90	8.90	8.90	9.00	9.00	9.00	9.10	9.10	9.10	9.20	3.20

Size B. & S.	21c.	22c.	23c.	24c.	25c.	26c.	27c.	28c.	29c.	30c.	Add for Double Braid.
					Bars.						
14	$19.10	$19.30	$19.50	$19.80	$20.00	$20.30	$20.50	$20.80	$21.00	$21.30	$5.00
16	15.00	15.10	15.30	15.40	15.60	15.80	15.90	16.10	16.20	16.40	4.00
18	12.60	12.70	12.80	12.90	13.00	13.10	13.20	13.30	13.40	13.50	3.80
19	11.50	11.60	11.60	11.70	11.80	11.90	12.00	12.00	12.10	12.20	3.60
20	10.40	10.40	10.50	10.60	10.60	10.70	10.70	10.80	10.90	10.90	3.40
22	9.30	9.30	9.30	9.40	9.40	9.40	9.50	9.50	9.50	9.60	3.20

A tape and braid takes the same price as double braid.
A tape and two braids takes the same price as triple braid.

Light Insulation.

No. B. & S.	10c.	11c.	12c.	13c.	14c.	15c.	16c.	17c.	18c.	19c.	20c.
					Bars.						
14	$13.30	$13.60	$13.80	$14.00	$14.30	$14.50	$14.80	$15.00	$15.30	$15.50	$15.80
16	11.70	11.90	12.00	12.20	12.30	12.50	12.70	12.80	13.00	13.10	13.30
18	9.50	9.60	9.70	9.80	9.90	10.00	10.10	10.20	10.30	10.40	10.50
19	9.10	9.20	9.30	9.30	9.40	9.50	9.60	9.70	9.70	9.80	9.90
20	8.70	8.80	8.80	8.90	9.00	9.00	9.10	9.10	9.20	9.30	9.30
22	7.80	7.90	7.90	7.90	8.00	8.00	8.00	8.10	8.10	8.10	8.20

No. B. & S.	21c.	22c.	23c.	24c.	25c.	26c.	27c.	28c.	29c.	30c.
					Bars.					
14	$16.10	$16.30	$16.50	$16.80	$17.00	$17.30	$17.50	$17.80	$18.00	$18.30
16	13.50	13.60	13.80	13.90	14.10	14.30	14.40	14.60	14.70	14.90
18	10.60	10.70	10.80	10.90	11.00	11.10	11.20	11.30	11.40	11.50
19	10.00	10.10	10.10	10.20	10.30	10.40	10.50	10.50	10.60	10.70
20	9.40	9.40	9.50	9.60	9.60	9.70	9.70	9.80	9.90	9.90
22	8.30	8.30	8.30	8.40	8.40	8.40	8.50	8.50	8.50	8.60

Stranded Rubber Covered Fixture Wire.

Prices per 1,000 feet.

Heavy Insulation.

Size B. & S.	10c.	11c.	12c.	13c.	14c.	15c.	16c.	Add for Double Braid.
			Bars.					
14	$20.40	$20.70	$20.90	$21.20	$21.40	$21.70	$22.00	$5.00
16	17.70	17.90	18.10	18.20	18.40	18.50	18.70	4.00
18	15.00	15.10	15.20	15.30	15.40	15.50	15.60	3.80
19	13.60	13.70	13.80	13.90	13.90	14.00	14.10	3.60
20	12.10	12.20	12.30	12.30	12.40	12.50	12.50	3.40
22	11.30	11.40	11.40	11.50	11.50	11.50	11.60	3.20

Size B. & S.	17c.	18c.	19c.	20c.	21c.	22c.	23c.	Add for Double Braid.
14	$22.20	$22.40	$22.80	$23.00	$23.30	$23.50	$23.80	$5.00
16	18.90	19.00	19.20	19.30	19.50	19.70	19.80	4.00
18	15.70	15.80	15.90	16.00	16.10	16.20	16.30	3.80
19	14.20	14.30	14.30	14.40	14.50	14.60	14.70	3.60
20	12.60	12.60	12.70	12.80	12.90	13.00	13.00	3.40
22	11.60	11.70	11.70	11.70	11.80	11.80	11.90	3.20

Size B. & S.	24c.	25c.	26c.	27c.	28c.	29c.	30c.	Add for Double Braid.
14	$24.00	$24.30	$24.60	$24.80	$25.00	$25.40	$25.60	$5.00
16	20.00	20.10	20.30	20.50	20.60	20.80	20.90	4.00
18	16.40	16.50	16.60	16.70	16.80	16.90	17.00	3.80
19	14.70	14.80	14.90	15.00	15.10	15.10	15.20	3.60
20	13.10	13.20	13.20	13.30	13.30	13.40	13.50	3.40
22	11.90	11.90	12.00	12.00	12.10	12.10	12.10	3.20

A tape and braid takes the same price as double braid.
A tape and two braids takes the same price as triple braid.

WIRE, Rubber Covered.

Stranded Rubber Covered Fixture Wire (Continued).

Prices per 1,000 feet.

Light Insulation.

Bars.

No. B. & S.	10c.	11c.	12c.	13c.	14c.	15c.	16c.
14	$18.20	$18.50	$18.70	$19.00	$19.20	$19.50	$19.80
16	15.70	15.90	16.10	16.20	16.40	16.50	16.70
18	13.00	13.10	13.20	13.30	13.40	13.50	13.60
19	12.10	12.20	12.30	12.40	12.40	12.50	12.60
20	11.10	11.20	11.30	11.30	11.40	11.50	11.50
22	10.30	10.40	10.40	10.50	10.50	10.50	10.60

No. B. & S.	17c.	18c.	19c.	20c.	21c.	22c.	23c.
14	$20.00	$20.20	$20.60	$20.80	$21.10	$21.30	$21.60
16	16.90	17.00	17.20	17.30	17.50	17.70	17.80
18	13.70	13.80	13.90	14.00	14.10	14.20	14.30
19	12.70	12.80	12.80	12.90	13.00	13.10	13.20
20	11.60	11.60	11.70	11.80	11.90	12.00	12.00
22	10.60	10.70	10.70	10.70	10.80	10.80	10.90

No. B. & S.	24c.	25c.	26c.	27c.	28c.	29c.	30c.
14	$21.80	$22.10	$22.40	$22.60	$22.80	$23.20	$23.40
16	18.00	18.10	18.30	18.50	18.60	18.80	18.90
18	14.40	14.50	14.60	14.70	14.80	14.90	15.00
19	13.20	13.30	13.40	13.50	13.60	13.60	13.70
20	12.10	12.20	12.20	12.30	12.30	12.40	12.50
22	10.90	10.90	11.00	11.00	11.10	11.10	11.10

The rubber and the braid are each $\frac{1}{64}$ inch thick.

Rubber Covered Telephone Wires.

Prices per 1,000 feet on twisted pairs, braided or plain finish.

Bars.

No. B. & S.	Finish.	Over Rubber.	10c.	11c.	12c.	13c.	14c.	15c.	16c.
14	Braided	$\frac{11}{64}$ in.	$37.00	$37.60	$38.00	$38.40	$39.00	$39.40	$40.00
14	,,	$\frac{5}{32}$,,	32.80	33.40	33.80	34.20	34.80	35.20	35.80
16	,,	$\frac{5}{32}$,,	33.80	34.20	34.40	34.80	35.00	35.40	35.80
16	,,	$\frac{9}{64}$,,	29.20	29.60	29.80	30.20	30.40	30.80	31.20
16	,,	$\frac{4}{32}$,,	24.60	25.00	25.20	25.60	25.80	26.20	26.60
18	,,	$\frac{4}{32}$,,	25.40	25.60	25.80	26.00	26.20	26.40	26.60
18	,,	$\frac{7}{64}$,,	21.00	21.20	21.40	21.60	21.80	22.00	22.20
19	,,	$\frac{7}{64}$,,	21.20	21.40	21.60	21.60	21.80	22.00	22.20
19	,,	$\frac{3}{32}$,,	16.80	17.00	17.20	17.20	17.40	17.60	17.80
20 or 22	,,	$\frac{3}{32}$,,	17.00	17.20	17.20	17.40	17.60	17.60	17.80
19	Plain	$\frac{3}{32}$,,	14.60	14.80	15.00	15.00	15.20	15.40	15.60
20 or 22	,,	$\frac{3}{32}$,,	14.80	15.00	15.00	15.20	15.40	15.40	15.60

B. & S.	Finish.	Over Rubber.	17c.	18c.	19c.	20c.	21c.	22c.	23c.
14	Braided	$\frac{11}{64}$ in.	$40.40	$41.00	$41.40	$42.00	$42.60	$43.00	$43.40
14	,,	$\frac{5}{32}$,,	36.20	36.80	37.20	37.80	38.40	38.80	39.20
16	,,	$\frac{5}{32}$,,	36.00	36.40	36.60	37.00	37.40	37.60	38.00
16	,,	$\frac{9}{64}$,,	31.40	31.80	32.00	32.40	32.80	33.00	33.40
16	,,	$\frac{4}{32}$,,	26.80	27.20	27.40	27.80	28.20	28.40	28.80
18	,,	$\frac{4}{32}$,,	26.80	27.00	27.20	27.40	27.60	27.80	28.00
18	,,	$\frac{7}{64}$,,	22.40	22.60	22.80	23.00	23.20	23.40	23.60
19	,,	$\frac{7}{64}$,,	22.40	22.40	22.60	22.80	23.00	23.20	23.20
19	,,	$\frac{3}{32}$,,	18.00	18.00	18.20	18.40	18.60	18.80	18.80
20 or 22	,,	$\frac{3}{32}$,,	17.80	18.00	18.20	18.20	18.40	18.40	18.60
19	Plain	$\frac{3}{32}$,,	15.80	15.80	16.00	16.20	16.40	16.60	16.60
20 or 22	,,	$\frac{3}{32}$,,	15.60	15.80	16.00	16.00	16.20	16.20	16.40

B. & S.	Finish.	Over Rubber.	24c.	25c.	26c.	27c.	28c.	29c.	30c.
14	Braided	$\frac{11}{64}$ in.	$44.00	$44.40	$45.00	$45.40	$46.00	$46.40	$47.00
14	,,	$\frac{5}{32}$,,	39.80	40.20	40.80	41.20	41.80	42.20	42.80
16	,,	$\frac{5}{32}$,,	38.20	38.60	39.00	39.20	39.60	39.80	40.20
16	,,	$\frac{9}{64}$,,	33.60	34.00	34 40	34.60	35.00	35.20	35.60
16	,,	$\frac{4}{32}$,,	29.00	29.40	29.80	30.00	30.40	30.60	31.00
18	,,	$\frac{4}{32}$,,	28.20	28.40	28.60	28.80	29.00	29.20	29.40
18	,,	$\frac{7}{64}$,,	23.80	24.00	24.20	24.40	24.60	24.80	25.00
19	,,	$\frac{7}{64}$,,	23.40	23.60	23.80	24.00	24.00	24.20	24.40
19	,,	$\frac{3}{32}$,,	19.00	19.20	19.40	19 60	19.60	19.80	20.00
20 or 22	,,	$\frac{3}{32}$,,	18.80	18.80	19.00	19.00	19.20	19.40	19.40
19	Plain	$\frac{3}{32}$,,	16.80	17.00	17.20	17.40	17.40	17.60	17.80
20 or 22	,,	$\frac{3}{32}$,,	16.60	16.60	16.80	16.80	17.00	17.20	17.20

WIRE, Snake (see Wire, fish).

WIRE, Steel (see Wire, binding, and Wire, iron).

WIRE, Weatherproof.

Weatherproof Copper Wire.

Solid W. P. Wire.

Prices of weatherproof copper wire are figured on the *base price of bare copper wire* which will be given upon request. This base price must not be confused with the base price of copper bars.

Prices given below are to be added to base price and are for less than 200-pound lots, f. o. b. factory.

For 200-lb. lots deduct	per lb.,	$ .01
,, 500 ,, ,, ,,	,,	.01½
,, 1000 ,, ,, ,,	,,	.02
,, Boston delivery add	per 100 lbs.,	.05

Add to base price per pound :

	T. B.	D. B.	F. & W.	S. B. W.
0000–8 B. & S.	$ .02	$ .03	$ .02½	$ .04
10 ,,	.03	.04	.03½	.05
12 ,,	.04	.05	.04½	.06
14 ,,	.05	.06	.05½	.07
16 ,,	.06	.07	.06½	.08
18 ,,	.07	.08	.07½	.09

Triple braid weatherproof (T. B.) is sent on all orders unless otherwise specified.

Single braid weatherproof takes price of T. B. plus 1½ cents per pound.

Twisted pairs are 2 cents advance over the price of the two wires of which they are composed.



W. P. Wire.

Stranded W. P. Wire.

To the above net prices of solid weatherproof wires add the following advances for stranded wire :

When composed of —	
No. 10 and coarser, advance	$ .00¼
,, 11 ,, 12, advance	.00½
,, 13 ,, 14 ,,	.01
,, 15 ,, 16 ,,	.01½

When composed of —	
No. 17 and 18, advance	$ .02
,, 19 ,, 20 ,,	.03
,, 21 ,, 22 ,,	.05
,, 23 ,, 24 ,,	.07

On the basis of the sizes of wires used in the stranded weatherproof most commonly used, this advance will be as follows :

For No. 6 W. P. wire stranded, add to price of solid	per lb.,	$ .01½
,, ,, 4 ,, ,, ,, ,, ,, ,, ,,	,,	.01
,, ,, 3 ,, ,, ,, ,, ,, ,, ,,	,,	.00½
,, ,, 2 ,, ,, ,, ,, ,, ,, ,,	,,	.01½
,, ,, 1 ,, ,, ,, ,, ,, ,, ,,	,,	.01
,, ,, 0 ,, ,, ,, ,, ,, ,, ,,	,,	.01
,, ,, 00 ,, ,, ,, ,, ,, ,, ,,	,,	.00½
,, ,, 000 ,, ,, ,, ,, ,, ,, ,,	,,	.00½
,, ,, 0000 ,, ,, ,, ,, ,, ,, ,,	,,	.00¼
,, larger sizes of stranded W. P. (except below), add	,,	.00¼
,, 300000 C. M., add	,,	.01
,, 450000 ,, ,,	,,	.00½

WIRE, Weatherproof (Continued).

Weatherproof Wire.

Approximate Weights.

Solid.

Size B. & S. Gauge.	Double Braid. Lbs. per 1,000 Ft.	Double Braid. Lbs. per Mile.	Triple Braid. Lbs. per 1,000 Ft.	Triple Braid. Lbs. per Mile.
0000	723	3817	767	4050
000	587	3098	629	3320
00	467	2467	502	2650
0	377	1989	407	2150
1	294	1553	316	1670
2	239	1264	260	1370
3	185	977	199	1050
4	151	795	164	865
5	122	646	135	710
6	100	529	112	590
8	66	349	75	395
9	54	283	62	325
10	46	241	53	280
12	30	158	35	185
14	20	107	25	130
16	16	83	20	105
18	12	64	16	85
20	9	48	12	65

Stranded.

Capacity, Circular Mils.	Double Braid. Lbs. per 1,000 Ft.	Double Braid. Lbs. per Mile.	Triple Braid. Lbs per 1,000 Ft.	Triple Braid. Lbs. per Mile.
2000000	6690	35323	7008	37000
1750000	5894	31119	6193	32700
1500000	5098	26915	5380	28400
1250000	4264	22516	4508	23800
1000000	3456	18246	3674	19400
900000	3127	16513	3332	17600
800000	2799	14779	2992	15800
750000	2635	13913	2822	14900
700000	2471	13045	2650	14000
600000	2093	11052	2235	11800
500000	1765	9318	1894	10000
450000	1601	8452	1724	9100
400000	1436	7584	1553	8200
350000	1248	6589	1345	7100
300000	1083	5721	1174	6200
250000	907	4788	985	5200
Size B. & S. Gauge.				
0000	745	3935	800	4220
000	604	3190	653	3450
00	482	2544	522	2760
0	388	2051	424	2240
1	303	1599	328	1735
2	246	1301	270	1425
3	190	1004	206	1090
4	155	820	170	900
5	126	668	140	740
6	103	544	115	610
8	68	359	78	410

Slow Burning Weatherproof Wire.

Capacity, Circular Mils.	Triple Braid — Black Outside. Stranded. Lbs. per 1,000 Ft.	Stranded. Lbs. per Mile.	Solid. Lbs. per 1,000 Ft.	Solid. Lbs. per Mile.	Triple Braid — White Outside. Stranded. Lbs. per 1,000 Ft.	Stranded. Lbs. per Mile.	Solid. Lbs. per 1,000 Ft.	Solid. Lbs. per Mile.
1000000	3860	20400			3880	20500		
900000	3520	18600			3540	18700		
800000	3180	16800			3200	16900		
700000	2820	14900			2840	15000		
600000	2350	12400			2370	12500		
500000	1990	10500			2010	10600		
450000	1820	9600			1840	9700		
400000	1650	8700			1670	8800		
350000	1440	7600			1460	7700		
300000	1270	6700			1290	6800		
250000	1060	5600			1080	5700		
Size B. & S. Gauge.								
0000	900	4750	862	4550	910	4800	870	4600
000	735	3880	710	3750	745	3930	720	3800
00	583	3080	562	2970	590	3120	568	3000
0	480	2530	462	2440	485	2560	470	2475
1	355	1870	340	1800	360	1910	350	1850
2	290	1540	280	1480	300	1585	290	1530
3	240	1270	230	1220	245	1300	240	1260
4	195	1030	190	1000	205	1080	200	1055
5	160	845	155	820	175	925	170	900
6	132	695	127	670	145	760	140	740
8	87	460	85	450	97	510	95	500
10			60	315			70	370
12			42	220			52	275
14			30	160			40	210
16			24	130			30	160
18			19	100			24	130



No. 325.



No. 326.



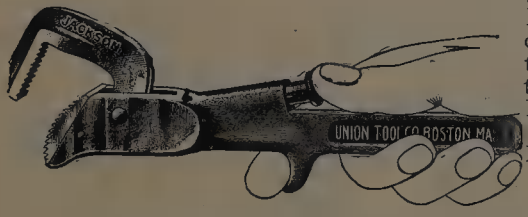
Coe's Wrench.



Stillson Wrench.



Stillson Wrench.



8-in. Jackson Wrench.



Irland Pipe Wrench.

WOOD Break Strain Insulator (see I).
WOOD Alcohol (see A).
WOOD'S Trailer Connector (see C).
WRENCH.

Steel Lag Screw Wrench.

No. 325. Full polished; takes ½-in. and ⅝-in. lag screws, and is especially useful to linemen in putting up cross arms ..... each, $1 60

Combination Steel Lag Screw Wrench.

No. 326. Full polished; lag screw and nut wrench for ⅜-, ½-, and ⅝-in. lag screws and bolts ..... each, $2.50

Genuine Coe's Wrenches, No. S-2870.

Wrought iron bar, black finish.

6-in.	Coe's genuine wrench ..... per doz.,	$9.00
8	,, ,, ,, ,, ... ,,	10.00
10	,, ,, ,, ,, ... ,,	12.00
12	,, ,, ,, ,, ... ,,	14.00
15	,, ,, ,, ,, ... ,,	24.00
18	,, ,, ,, ,, ... ,,	30.00
21	,, ,, ,, ,, ... ,,	36.00

P. S. and W. Ideal wrench uses same list but different discount.

Stillson Pipe Wrench, No. S-2871.

An adjustable pipe and nut wrench made of best tool steel throughout.

With Wood Handle.

6-in.,	grips ⅛-in. wire to ½-in. pipe .... each,	$2.00
8	,, ,, ⅛ ,, ,, ,, ¾ ,, ,, ... ,,	2.00
10	,, ,, ⅛ ,, ,, ,, 1 ,, ,, ... ,,	2.25
14	,, ,, ¼ ,, ,, ,, 1½ ,, ,, ... ,,	3.00

All Steel.

18-in.,	grips ¼-in. wire to 2- in. pipe ... each,	$4.00
24	,, ,, ¼ ,, ,, ,, 2½ ,, ,, ... ,,	6.00
36	,, ,, ½ ,, pipe ,, 3½ ,, ,, ... ,,	12.00
48	,, ,, 1 ,, ,, ,, 5 ,, ,, ... ,,	18.00

Jackson Instantaneous Wrench.

Always ready for use, saves time and labor. A slight pressure of the thumb operates the jaw. It is instantly adjusted, cannot slip, and will not crush the pipe. The harder the pull, the stronger the grip. The 14-inch size has trigger instead of thumb push.

No. S-2872. Jackson wrench, 8-in., jaw opens 1 in. ..... each, $1.50

No. S-2873. Jackson wrench, 14-in., jaw opens 2 in. ..... each, 2.00

Irland Pipe Wrench, No. S-2875.

The Irland pipe wrenches are of the best workmanship throughout. The handle being tubular and the jaws drop-forged from the highest quality of steel makes a wrench of exceptional strength. All parts are interchangeable and can be replaced at small expense. The Irland pipe wrench is operated with one hand, and being automatic enables the user to reach at arm's length and make an adjustment instantly, and also enables him to reach into difficult close places where impossible to work with the usual wrench. As a time saver and a tool for greater *utility* and *convenience* it commends itself universally.

Length of Handle in Inches	7	10	14
Takes from Inches	⅛ to ½ Pipe.	⅛ to 1 Pipe.	⅛ to 1½ Pipe.
Price, complete, each,	$2.00	$2.60	$3.00
,, movable jaw ..	.60	.70	.80
,, fixed jaw.....	.40	.50	.60
,, trigger.....	.25	.30	.30
,, connecting rod,	.15	.20	.20
,, spring.....	.10	.10	.10

WRENCH.

Lag-Screw Socket Wrench

Designed for turning coach screws, nuts, or bolts either way, without taking off the wrench.

These wrenches are easily changeable for various sizes by means of the different sockets.

Prices include only one socket.

No. 1. 12-in. handle, as shown in A..... $1.75
„ 1. 12 „ „ „ „ „ C..... 2.00

The sockets for this wrench will turn nuts measuring (smaller outside diameter) $\frac{1}{2}$ $\frac{5}{8}$, $\frac{3}{4}$ $\frac{7}{8}$, 1, $1\frac{1}{16}$, $1\frac{1}{4}$ inches square; $\frac{3}{4}$, $\frac{7}{8}$, 1 $1\frac{1}{16}$, $1\frac{1}{4}$ inches hexagon. Extra sockets, 40 cents each.

No. 2. 16-in. handle, shown in A or C..... $3.00

These sockets for nuts (smaller outside diameter) $1\frac{1}{16}$, $1\frac{1}{4}$, $1\frac{7}{16}$ inches, either square or hexagon. Extra sockets, 75 cents each.

No. 3. 20-in. handle, like A or C $4.50

With sockets to fit (smaller outside diameter) nuts $1\frac{1}{4}$ $1\frac{7}{16}$ $1\frac{5}{8}$, $1\frac{13}{16}$ inches, square or hexagon. Extra sockets, $1.00 each.

The cut B shows a long socket made to order only.

The No. 3 is particularly adapted to handling nuts under the broad tread on street railway rails.



Socket Wrenches.

Forged Hanger Wrench.

This wrench is especially designed for putting up cap and cone hangers.

The hanger is laid in the jaws of the wrench, the wire passing under the hook of the wrench and also over the right-hand hook of the hanger, then passing around the back of the hanger as shown by the solid lines in the lower cut; the handle of the wrench is then pulled to the left, which allows the span wire to be readily placed under the left-hand hook of the hanger, which completes the operation.

No. S-2880. Span or hanger wrench....each, $2.50



Forged Hanger Wrench.

X-RAY Apparatus (prices on application. See Coils, X-ray).

X-RAY Shades (see Shades and Reflectors).

YAGER'S Salts (see S).

YALE Lock Switch (see Switches).

YOKES (see Suspensions).

ZINCS (see Coppers).

Zincs.

These zincs are made from high-grade spelter by skilled labor with the best manufacturing facilities.

In the composite mercury zincs, a new and improved process is used whereby the mercury and the molten zinc are so perfectly blended as to secure a thoroughly uniform, homogeneous amalgamation throughout.



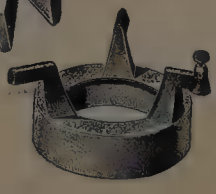
No. 1.



No. 2.



No. 3.



No. 4.

Crowfoot Zincs.

No. 1. Crowfoot zinc, for 5 x 7 inch jar, with thumbscrew. Weight, 1 lb. 12 oz.
Plain .....each, $ .50
Composite mercury ..... „ .60

No. 2. Crowfoot zinc for 6 x 8 inch jar, with thumbscrew. Weight, 3 lbs.
Plain .....each, .60
Composite mercury ..... „ .70

No. 3. Crowfoot zinc, for 6 x 8 inch jar, with thumbscrew. Weight, 3 lbs. 4 oz.
Plain .....each, .65
Composite mercury ..... „ .75

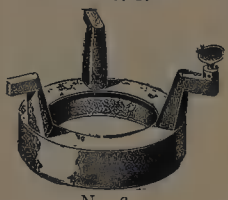
Fire Alarm Zincs.

No. 4. Gamewell fire alarm zinc, with binding-post and screw. Weight, 4 lbs.
Plain .....each, .80
Composite mercury ..... „ .90



No. 5.





No. 6.

No. 8.





No. 7 & 7½.

No. 9.



No. 10. No. 11A. No. 11B. No. 11C.





No. 12.

No. 14.



No. 18.





No. 17.

No. 19.

ZINCS.

Zincs (Continued).

Fire Alarm Zincs.

No. 5. Gamewell fire alarm zinc, with binding-post and screw. Weight, 3 lbs. Plain....each, $ .65
Composite mercury..... ,, .75

No. 6. Standard fire alarm zinc, with binding-post and screw. Weight, 3 lbs. Plain....each, .65
Composite mercury..... , .75

No. 7. Track circuit and fire alarm zinc, with wire arms, binding-post, and screw. Weight, 4 lbs. Plain.....each, .80
Composite mercury..... ,, .90

No. 7½. Track circuit and fire alarm zinc, with wire arms, binding-post, and screw. Weight, 3 lbs. Plain.....each, .65
Composite mercury..... ,, .75

Daniels' and Fuller Zincs.

No. 8. Daniels' zinc, with copper wire. Weight, 2 lbs. 3 oz. Plain.....each, $ .60
Composite mercury..... ,, .70

No. 9. Fuller zinc with copper wire. Weight, 1 lb. 2 oz. Plain.....each, .30
Composite mercury..... ,, .35
Amalgamated..... ,, .35

Pencil Zincs (18 lbs. to 100 zincs).

No. 10. Leclanche zinc, made from rolled plate, $\frac{5}{16} \times \frac{3}{8}$, with thumbscrew. Plain....each, $ .05½
Amalgamated..... ,, .06

No. 11A. Leclanche zinc, ⅜ rolled rod, with thumb-screw. Plain.....each, .05½
Amalgamated..... ,, .06

No. 11B. Leclanche zinc, ⅜ rolled rod, with wing nut and washer. Plain.....each, .05½
Amalgamated..... ,, .06

No. 11C. Leclanche zinc, cast ⅜ round, with 2 per cent mercury (composite), with ears or lugs and brass screw with nut.....each, .06

Cylindrical Zincs.

No. 12–1. Cylinder zinc, with post and screw. Weight, 7 oz. Plain.....each, $ .22
Amalgamated..... ,, .26

No. 12–2. Cylinder zinc, with post and screw. Weight, 8 oz. Plain.....each, .24
Amalgamated..... ,, .28

No. 14. Carbon or Bunsen zinc. Weight, 3 lbs. 6 oz. Plain.....each, .85
Composite mercury..... ,, .95

Special Zincs.

No. 17. Bottle zinc, with screw. Weight, 2 lbs. 6 oz. Plain.....each, $ .60
Composite mercury..... ,, .70

No. 18. Callaud star zinc, with copper wire. Weight, 2 lbs. 2 oz. Plain.....each, .55
Composite mercury..... ,, .60

No. 19. Lockwood zinc, with pin and nut. Weight, 2 lbs. Plain.....each, .55
Composite mercury..... ,, .60

TABLE No. 1.

Table of Dimensions, Weight and Length of Pure Copper Wire.

Size. Brown & Sharpe.	Diameter Mils.	Circular Mils. (d^2). 1 Mil. = 001 In.	Lbs. per 1,000 Feet.	Lbs. per Mile.	Feet per Lb.
No. 0000	460.000	211600.00	639.33	3375.7	1.56
,, 000	409.640	167805.00	507.01	2677.0	1.97
,, 00	364.800	133079.40	402.09	2123.0	2.49
,, 0	324.860	105538.00	318.86	1683.6	3.14
,, 1	289.300	83694.20	252.88	1335.2	3.95
,, 2	257.630	66373.00	200.54	1058.8	4.99
,, 3	229.420	52634.00	159.03	839.68	6.29
,, 4	204.310	41742.00	126.12	665.91	7.93
,, 5	181.940	33102.00	100.01	528.05	10.00
,, 6	162.020	26250.50	79.32	418.81	12.61
,, 7	144.280	20816.00	62.90	332.11	15.90
,, 8	128.490	16509.00	49.88	263.37	20.05
,, 9	114.430	13094.00	39.56	208.88	25.28
,, 10	101.890	10381.00	31.37	165.63	31.38
,, 11	90.742	8234.00	24.88	137.37	40.20
,, 12	80.808	6529.90	19.73	104.18	50.69
,, 13	71.961	5178.40	15.65	82.632	63.91
,, 14	64.048	4106.70	12.44	65.674	80.38
,, 15	57.068	3256.7	9.84	51.956	101.63
,, 16	50.820	2582.9	7.81	41.237	128.14
,, 17	45.257	2048.2	6.19	32.683	161.59
,, 18	40.303	1624 3	4.91	25.925	203.76
,, 19	35.876	1287.1	3.88	20.507	257.47
,, 20	31.961	1021.5	3.09	16.315	324.00
,, 21	28.462	810.10	2.45	12.936	408.56
,, 22	25.347	642.70	1.94	10.243	515.15
,, 23	22.571	509.45	1.54	8.1312	649 66
,, 24	20.100	404.01	1.22	6.4416	819.21
,, 25	17.900	320.40	.97	5.1216	1032.96
,, 26	15.940	254.01	.77	4.0656	1302.61
,, 27	14.195	201.50	.61	3.2208	1642.55
,, 28	12.641	159.79	.48	2.5344	2071.22
,, 29	11.257	126.72	.38	2.0064	2611.82
,, 30	10.025	100.5	.30	1.5840	3293.97
,, 31	8.928	79.71	.24	1.2672	4152.22
,, 32	7.950	63.20	.19	1.0032	5236.66
,, 33	7.080	50.13	.15	.7920	6602.71
,, 34	6.304	39.74	.12	.6336	8328.30
,, 35	5.614	31.52	.10	.5280	10501.35
,, 36	5.000	25.00	.08	.4224	13238.83
,, 37	4.453	19.83	.06	.3168	16691.06
,, 38	3.965	15.72	.05	.2640	20854.65
,, 39	3.531	12.47	.04	.2112	26302.23
,, 40	3.144	9.89	.03	.1584	33175.94

Comparison Copper and Aluminum.

Below is a table showing some relative properties of copper and aluminum:

	Copper.	Aluminum.
Specific gravity	8.93	2.68
Conductivity	100	63
Weight for equal conductivity	100	48
Area ,, ,, ,,	100	160
Diam. ,, ,, ,,	100	126.04

This shows that aluminum has 63 per cent as great conductivity and 48 per cent of the weight of copper; that for a wire of equivalent conductivity, it has a cross section 60 per cent greater and a diameter 26.4 per cent greater than copper.

Specific Gravity of Metals.

Platinum	21.5	Nickel	8.8
Gold	19.3	Steel	7.8
Lead	11.4	Tin	7.3
Silver	10.5	Zinc	7 1
Copper	8.9	Aluminum	2 6

TABLE No. 2.

Table of Resistances at 75° F. of Pure Copper Wire.

Size. Brown & Sharpe.	Ohms per 1,000 Ft.	Ohms per Mile.	Ohms per Pound.	Feet per Ohm.
No. 0000	.04906	.25903	.000076736	20383.
,, 000	.06186	.32664	.00012039	16165.
,, 00	.07801	.41187	.00019423	12820.
,, 0	.09838	.51937	.00038500	10166.
,, 1	.12404	.65490	.00048994	8062.3
,, 2	.15640	.82582	.00078045	6393.7
,, 3	.19723	1.0414	.0012406	5070.2
,, 4	.24869	1.3131	.0019721	4021.0
,, 5	.31361	1.6558	.0031361	3188.7
,, 6	.39546	2.0881	.0049868	2528.7
,, 7	.49871	2.6331	.0079294	2005.2
,, 8	.62881	3.3201	.012608	1590.3
,, 9	.79281	4.1860	.020042	1261.3
,, 10	1.	5.2800	.031380	1000.0
,, 11	1.2607	6.6568	.050682	793.18
,, 12	1.5898	8.3940	.080585	629.02
,, 13	2.0047	10.585	.12841	498.83
,, 14	2.5278	13.347	.20322	395.60
,, 15	3.1150	16.477	.31658	321.02
,, 16	4.0191	21.221	.51501	248.81
,, 17	5.0683	26.761	.81900	197.30
,, 18	6.3911	33.745	1.3023	156.47
,, 19	8.0654	42.585	2.0759	123.99
,, 20	10.163	53.658	3.2926	98.401
,, 21	12.815	67.660	5.2355	78.067
,, 22	16.152	85.283	8.3208	61.911
,, 23	20.377	107.59	13.238	49.087
,, 24	25.695	135.67	21.050	38.918
,, 25	32.400	171.07	33.466	30.864
,, 26	40.868	215.79	35.235	24.469
,, 27	51.519	272.02	84.644	19.410
,, 28	64.966	343.02	134.56	15.393
,, 29	81.921	432.54	213.96	12.207
,, 30	103.30	545.39	340.25	9 6812
,, 31	127.27	671.99	528.45	7.8573
,, 32	164.26	867.27	860.33	6.0880
,, 33	207.08	1093.4	1367.3	4.8290
,, 34	261.23	1379.3	2175.5	3.8281
,, 35	329.35	1738.9	3458.5	3.0363
,, 36	415.24	2192.5	5497.4	2.4082
,, 37	523.76	2765.5	8742.1	1.9093
,, 38	660.37	3486.7	13772.	1.5143
,, 39	832.48	4395.5	21896.	1.2012
,, 40	1049.7	5542.1	34823.	.9527

Comparison of Thermometrical Scales.

To convert degrees centigrade into degrees Fahrenheit:

$$F = \frac{9C}{5} + 32$$

To convert degrees Fahrenheit into degrees centigrade:

$$C = \frac{5\,(F - 32)}{9}$$

Melting Points.

Cast iron	2210	degrees Fahrenheit
Wrought iron	2912	,, ,,
Steel	2500	,, ,,
Copper	2160	,, ,,
Brass	1900	,, ,,
Lead	408	,, ,,
Tin	646	,, ,,

TABLE No. 3.

Table Showing the Differences between Wire Gauges.

	Brown & Sharpe.	Old English or London.	Stubbs or Birmingham.	New British Standard.	Washburn & Moen Mfg. Co.
No. 0000	.460	.454	.454	.400	.393
,, 000	.40964	.425	.425	.372	.362
,, 00	.36480	.380	.380	.348	.331
,, 0	.32495	.340	.340	.324	.307
,, 1	.28930	.300	.300	.300	.283
,, 2	.25763	.284	.284	.276	.263
,, 3	.22942	.259	.259	.252	.244
,, 4	.20431	.238	.238	.232	.225
,, 5	.18194	.220	.220	.212	.207
,, 6	.16202	.203	.203	.192	.192
,, 7	.14428	.180	.180	.176	.177
,, 8	.12849	.165	.165	.160	.162
,, 9	.11443	.148	.148	.144	.148
,, 10	.10189	.134	.134	.128	.135
,, 11	.09074	.120	.120	.116	.12
,, 12	.08081	.109	.109	.104	.105
,, 13	.07196	.095	.095	.092	.092
,, 14	.06408	.083	.083	.080	.08
,, 15	.05706	.072	.072	.072	.072
,, 16	.05082	.065	.065	.064	.063
,, 17	.04525	.058	.058	.056	.054
,, 18	.04030	.049	.049	.048	.047
,, 19	.03589	.040	.042	.040	.041
,, 20	.03196	.035	.035	.036	.035
,, 21	.02846	.0315	.032	.032	.032
,, 22	.025347	.0295	.028	.028	.028
,, 23	.022571	.027	.025	.024	.025
,, 24	.0201	.025	.022	.022	.023
,, 25	.0179	.023	.020	.020	.02
,, 26	.01594	.0205	.018	.018	.018
,, 27	.014195	.01875	.016	.016.4	.017
,, 28	.012641	.0165	.014	.014.8	.016
,, 29	.011257	.0155	.013	.013.6	.015
,, 30	.010025	.01375	.012	.012.4	.014
,, 31	.008928	.01225	.010	.011.6	.0135
,, 32	.00795	.01125	.009	.010.8	.013
,, 33	.00708	.01025	.008	.010	.011
,, 34	.0063	.0095	.007	.009.2	.01
,, 35	.00561	.009	.005	.008.4	.0095
,, 36	.005	.0075	.004	.007.6	.009
,, 37	.00445	.0065			.0085
,, 38	.003965	.00575			.008
,, 39	.003531	.005			.0075
,, 40	.003144	.0045			.007

Proportionate Weight of Castings to Weight of Wood Patterns.

A Pattern Weighing One Pound Made of,— (Less weight of Core Prints.)	Cast Iron.	Brass.	Copper.	Bronze.	Bell Metal.	Zinc.
Pine or fir	16.	15.8	16.7	16.3	17.1	13.5
Oak	9.	10.1	10.4	10.3	10.9	8.6
Beech	9.7	10.9	11.4	11.3	11.9	9.1
Linden	13.4	15.1	16.7	15.5	16.3	12.9
Pear	10.2	11.5	11.9	11.8	12.4	9.8
Birch	10.6	11.9	12.3	12.2	12.9	10.2
Alder	12.8	14.3	14.9	14.7	15.5	12.2
Mahogany	11.7	13.2	13.7	13.5	14.2	11.2
Brass	0.85	0.95	0.99	0.98	1.0	0.81

TABLE No. 4.
Resistances of German Silver Wire.

Size.	18% Alloy. Ohms per 1,000 Feet.	18% Alloy. Ohms per Pound.	30% Alloy. Ohms per 1,000 Feet.	30% Alloy. Ohms per Pound.
No. 8	11.772	.23598	17.658	.35397
,, 9	11.832	.37494	17.748	.56241
,, 10	18.72	.59652	28.08	.89478
,, 11	23.598	.94842	35.397	1.42263
,, 12	29.754	1.50786	44.631	2.26179
,, 13	37.512	2.39778	56.268	3.59667
,, 14	47.304	3.8124	70.956	5.7186
,, 15	59.652	6.0624	89.478	9.0936
,, 16	75.222	9.639	112.833	14.458
,, 17	94.842	15.327	142.263	22.990
,, 18	119.61	24.3702	179.41	36.5553
,, 19	155.106	40.9896	232.659	61.4844
,, 20	190.188	61.614	285.282	92.421
,, 21	239.814	97.974	359.721	146.961
,, 22	302.382	155.772	453.573	233.658
,, 23	381.33	247.734	571.99	371.601
,, 24	480.834	393.93	721.251	590.89
,, 25	606.312	626.31	909.468	939.46
,, 26	764.586	995.958	1146.879	1493.937
,, 27	964.134	1583.622	1446.201	2375.433
,, 28	1215.756	2518.075	1823.634	3777.112
,, 29	1533.06	4004.082	2299.59	6006.123
,, 30	1933.038	6368.356	2899.557	9552.534
,, 31	2437.236	10119.978	3655.854	15179.967
,, 32	3073.77	16096.356	4610.65	24144.534
,, 33	3875.616	25589.628	5813.424	38384.442
,, 34	4888.494	40712.76	7332.741	61069.14
,, 35	6163.974	64729.87	9245.961	97094.80
,, 36	7770.816	102876.482	11656.224	154314.723
,, 37	9797.166	163524.78	14695.749	245287.17
,, 38	12357.198	257764.68	18535.797	386647.02
,, 39	15570.828	409546.8	23356.242	614320.2
,, 40	19653.57	652024.62	29480.35	978036.93

TABLE No. 5.
Carrying Capacity of Rubber-Covered and Weatherproof Wires.
From the rules of the National Board of Fire Underwriters.

B. & S. G.	R.-C. Wires. Amperes.	W.-P. Wires. Amperes.	Circular Mils.
18	3	5	1624
16	6	8	2583
14	12	16	4107
12	17	23	6530
10	24	32	10380
8	33	46	16510
6	46	65	26250
5	54	77	33100
4	65	92	41740
3	76	110	52630
2	90	131	66370
1	107	156	83690
0	127	185	105500
00	150	220	133100
000	177	262	167800
0000	210	312	211600

Circular Mils.	R.-C. Wires. Amperes.	W.-P. Wires. Amperes.
200000	200	300
300000	270	400
400000	330	500
500000	390	590
600000	450	680
700000	500	760
800000	550	840
900000	600	920
1000000	650	1000
1100000	690	1080
1200000	730	1150
1300000	770	1220
1400000	810	1290
1500000	850	1360
1600000	890	1430
1700000	930	1490
1800000	970	1550
1900000	1010	1610
2000000	1050	1670

The lower limit is specified for rubber-covered wires to prevent gradual deterioration of the high insulations by the heat of the wires, but not from fear of igniting the insulation. The question of drop is not taken into consideration in the above tables.

The carrying capacity of sixteen and eighteen wire is given, but no smaller than fourteen is to be used, except as allowed under Rules 24 *v* and 45 *b*, of the National Board of Fire Underwriters.

Rule A.

To find size of a stranded conductor when you know the number of strands and the size of each strand, —

Multiply the circular mils of the single strand by the number of strands, and find the nearest size to the result in the column of circular mils in Table No. 1.

Rule B.

To estimate the size of wire necessary to carry a given current a given distance with a given amount of loss in volts on the line, —

Multiply the current in amperes by twice the distance in feet by 10.7 and divide by the loss expressed *in volts.*

$$\text{Circular mils} = \frac{C \times 2D \times 10.7}{v}.$$

This will give the circular milage of the necessary wire from which you can get the nearest exact size of wire from Table No. 1.

EXAMPLE.

Find the size of wire necessary to carry 56 amperes a distance of 124 feet with a loss of 2 volts on the line (*i. e.*, a 110-volt circuit would be 108 volts at a distance of 124 feet away from the machine, or a 52-volt would be 50 volts).

$$\text{Circular mils} = \frac{56 \times 2 \times 124 \times 10.7}{2}.$$

Circular mils = 74,300.

The nearest size that corresponds to this is No. 2, but since 74,300 circular mils is *larger* than No. 2, the proper size of wire to use would be No. 1, which has a circular milage of 83,694.

Rule C.

If you have a piece of wire whose size is known, and if you know the current in amperes and the distance, then to find the drop in volts, —

$$\text{Volts drop} = \frac{C \times 2D \times 10.7}{\text{Circular mils}}.$$

Therefore, in the above case, if we wish to use No. 1 wire which has a circular milage of 83,694, we will have a drop in voltage of

$$\text{Volts drop} = \frac{56 \times 2 \times 124 \times 10.7}{83694}.$$

Volts drop = 1.77.

Rule D.

To find the size of wire to use for direct current motors, —

$$\text{Circular mils} = \frac{\text{Horse-power} \times 746 \times 2D \times 10.7}{V \times v \times E}.$$

Where V = voltage of motor.
v = volts lost.
E = efficiency of motor.
D = distance in feet one way.

The average efficiency of a motor varies from 75 per cent for a 1 horse-power motor to 90 per cent for a 10 horse-power or over.

Common Fractions and Their Decimal Equivalents.

Fraction.	Decimal.	Fraction.	Decimal.	Fraction.	Decimal.	Fraction.	Decimal.
1/64	.0156	33/64	.5156	17/64	.2656	49/64	.7656
1/32	.0313	17/32	.5313	9/32	.2813	25/32	.7813
3/64	.0469	35/64	.5469	19/64	.2969	51/64	.7969
1/16	.0625	9/16	.5625	5/16	.3125	13/16	.8125
5/64	.0781	37/64	.5781	21/64	.3281	53/64	.8281
3/32	.0938	19/32	.5938	11/32	.3438	27/32	.8438
7/64	.1094	39/64	.6094	23/64	.3594	55/64	.8594
1/8	.1250	5/8	.6250	3/8	.3750	7/8	.8750
9/64	.1406	41/64	.6406	25/64	.3906	57/64	.8906
5/32	.1563	21/32	.6563	13/32	.4063	29/32	.9063
11/64	.1719	43/64	.6719	27/64	.4219	59/64	.9219
3/16	.1875	11/16	.6875	7/16	.4375	15/16	.9375
13/64	.2031	45/64	.7031	29/64	.4531	61/64	.9531
7/32	.2188	23/32	.7188	15/32	.4688	31/32	.9688
15/64	.2344	47/64	.7344	31/64	.4844	63/64	.9844
1/4	.2500	3/4	.7500	1/2	.5000	1	1.0000

Useful Information.

One Horse-Power

Is equivalent to 746 watts [= 33,000 foot pounds per minute].

In amperes this would be equivalent at

110 volts to 6.78 amperes.
220 ,, ,, 3.39 ,,
500 ,, ,, 1.49 ,,

A ten horse-power motor would take 33.9 amperes on a 220-volt circuit, etc.

An Ordinary 16 c. p. Lamp

Consumes about 56 watts (about $\frac{1}{13}$ of a horse-power), which is at the rate of $3\frac{1}{2}$ watts per candle-power.

This is equivalent at

52 volts to 1.08 amperes.
104 ,, ,, .54 ,,
110 ,, ,, .51 ,,
220 ,, ,, .25 ,,

An 8 candle-power lamp would consume one half as much.

A 4 candle-power lamp would consume one fourth as much.

Two 16 c. p. 110-volt lamps

In series on a 220-volt circuit would consume 2 × 56 watts = 112 watts, which equals .51 amperes. This is, of course, the current that is flowing through *both* of the lamps in series.

Five 16 c. p. 110-volt lamps

In series on a 550-volt circuit would consume 5 × 56 watts = 280 watts, which equals .51 amperes, the same current flowing through all of the lamps as in the previous case.

Electrical Units.

Volt.

The unit of electromotive force. Force required to send one ampere of current through one ohm of resistance.

Ohm.

Unit of resistance. The resistance offered to the passage of one ampere, when impelled by one volt. The megohm equals 1,000,000 ohms.

Ampere.

Unit of current. The current which one volt can send through a resistance of one ohm. The milli-ampere equals the thousandth part of an ampere.

Coulomb.

Unit of quantity. Quantity of current which impelled by one volt would pass through one ohm in one second.

Farad.

Unit of capacity. The capacity of a conductor or condenser which will hold one coulomb under the pressure of one volt. The micro-farad equals the millionth part of a farad.

Watt. Unit of Power.

The power to do work when one ampere passes through one ohm, under pressure of one volt. The kilowatt equals 1,000 watts.

Joule. Unit of work.

The work done by one watt in one second.

Weights and Measures.

Troy Weight.

24 grains = 1 pwt.; 20 pwts. = 1 ounce; 12 ounces = 1 pound. Used for weighing gold, silver, and jewels.

Apothecaries' Weight.

20 grains = 1 scruple; 3 scruples = 1 dram; 8 drams = 1 ounce; 12 ounces = 1 pound. The ounce and pound in this are the same as in Troy weight.

Avoirdupois Weight.

$27\frac{11}{32}$ grains = 1 dram; 16 drams = 1 ounce; 16 ounces = 1 pound; 25 pounds =1 quarter; 4 quarters = 1 cwt.; 2,000 pounds = 1 short ton; 2,240 pounds = 1 long ton.

Dry Measure.

2 pints = 1 quart; 8 quarts = 1 peck; 4 pecks = 1 bushel; 36 bushels = 1 chaldron.

Liquid Measure.

4 gills = 1 pint; 2 pints = 1 quart; 4 quarts = 1 gallon; $31\frac{1}{2}$ gallons = 1 barrel; 2 barrels = 1 hogshead.

Time Measure.

60 seconds = 1 minute; 60 minutes = 1 hour; 24 hours = 1 day; 7 days = 1 week. 28, 29, 30, or 31 days = 1 calendar month (30 days = 1 month in computing interest); 365 days = 1 year; 366 days = 1 leap year.

(*Continued on next page.*)

Weights and Measures (Continued).

Circular Measure.
60 seconds = 1 minute; 60 minutes = 1 degree; 30 degrees = 1 sign; 90 degrees = 1 quadrant; 4 quadrants = 12 signs, or 360 degrees = 1 circle.

Long Measure.
12 inches = 1 foot; 3 feet = 1 yard; 5½ yards = 1 rod; 40 rods = 1 furlong; 8 furlongs = 1 statute mile; 3 miles = 1 league.

Cloth Measure.
2¼ inches = 1 nail; 4 nails = 1 quarter; 4 quarters = 1 yard.

Mariners' Measure.
6 feet = 1 fathom; 120 fathoms = 1 cable length; 7½ cable lengths = 1 mile; 5,280 feet = 1 statute mile; 6,085 feet = 1 nautical mile.

Miscellaneous.
3 inches = 1 palm; 4 inches = 1 hand; 6 inches = 1 span; 18 inches = 1 cubit; 21.8 inches = 1 Bible cubit; 2½ feet = 1 military pace.

Square Measure.
144 square inches = 1 square foot; 9 square feet = 1 square yard; 30¼ square yards = 1 square rod; 40 square rods = 1 rood; 4 roods = 1 acre; 640 acres = 1 square mile.

Surveyors' Measure.
7.92 inches = 1 link; 25 links = 1 rod; 4 rods = 1 chain; 10 square chains or 160 square rods = 1 acre; 640 acres = 1 square mile; 36 square miles (6 miles square) = 1 township.

Cubic Measure.
1,728 cubic inches = 1 cubic foot; 27 cubic feet = 1 cubic yard; 2,150.42 cubic inches = 1 standard bushel; 268.8 cubic inches = 1 standard gallon; 1 cubic foot = about four fifths of a bushel; 128 cubic feet = 1 cord (wood); 40 cubic feet = 1 ton (shipping).

Metrical Equivalents.

Measures of Length.
1 millimeter (mm.) = ... 0.03937079 inch, or about $\frac{1}{25}$ inch
10 millimeters = 1 centimeter (cm.) = ... 0.3937079 ,,
10 centimeters = 1 decimeter (dm.) = ... 3.937079 ,,
10 decimeters = 1 meter (m.) = ... 39.37079 inches, 3.2808992 feet, or 1.09361 yards
10 meters = 1 dekameter (dm.) = ... 32.808992 feet
10 dekameters = 1 hektometer (hm.) = ... 19.927817 rods
10 hektometers = 1 kilometer (km.) = ... 1,093.61 yards, or 0.6213824 mile
10 kilometers = 1 myriameter (mm.) = ... 6.213824 miles
1 inch = 2.54 cm., 1 foot = 0.3048 m., 1 yard = 0.9144 m., 1 rod = 0.5029 dm., 1 mile = 1.6093 km.

Measures of Weight.
1 gramme (g.) = ... 15.4324874 gr. Troy, or 0.03215 oz. Troy, or 0.03527398 oz. avoir.
10 grammes = 1 dekagramme (dg.) = ... 0.3527398 ,,
10 dekagrammes = 1 hectogramme (hg.) = ... 3.527398 ,,
10 hektogrammes = 1 kilogramme (kg.) = ... 2.20462125 lbs.
1000 kilogrammes = 1 tonne (t.) = 2,204.62125 lbs., or 1.1023 tons of 2,000 lbs., or 0.9842 ton of 2 240 lbs., or 19.68 cwts.
1 grain = 0.0648 g., 1 oz. avoir. = 28.35 g., 1 lb. = 0.4536 kg., 1 ton, 2,000 lbs., = 0.9072 t., 1 ton, 2 240 lbs., = 1.016 t., or 1.016 kg.

Measures of Capacity.
1 liter (l.) = 1 cubic decimeter = 61.0270515 cubic inches, or 0.03531 cubic foot, or 1.0567 liquid quarts, or 0.908 dry quart, or 0.26417 American gallon.
10 liters = 1 dekaliter (dl.) = ... 2.6417 gals., or 1.135 pks.
10 dekaliters = 1 hektoliter (hl.) = ... 2.8375 bu.
10 hektoliters = 1 kiloliter (kl.) = ... 61,027.0515 cu. in., or 28.375 bu.
1 cubic foot = ... 28.317 l., 1 gallon, American = 3.785 l., 1 gallon, British = 4.543 l.

Approximate Metric Equivalents.
1 decimeter = ... 4 inches
1 meter = ... 1.1 yards
1 kilometer = ... $\frac{5}{8}$ mile
1 hektar = ... 2½ acres
1 ster, or cubic meter = ... ¼ cord
1 liter = ... 1.06 quarts liquid, 0.9 quart dry
1 hektoliter = ... 2⅝ bushels
1 kilogram = ... 2⅕ pounds
1 metric ton = ... 2,200 ,,

MATERIAL REQUIRED FOR ONE MILE SINGLE TRACK.

Wood Poles 120 Feet Apart—3 Anchors per Mile.

Span Construction.

88 side street poles (wood).
100 eye bolts, nut and washer.
44 span wires (probably 60 feet each).
44 straight line suspensions.
41 15-inch straight line ears.
3 15-inch double strain ears.
12 globe strain insulators.
1,500 feet ¼-inch galvanized strand for anchors.
1 mile trolley wire.
2 trolley wire splicing sleeves.
352 protected rail bonds.

Bracket Construction.

50 side street poles (wood).
44 flexible pipe brackets.
44 straight line suspensions.
41 15-inch straight line ears.
3 15-inch double strain ears.
12 globe strain insulators.
12 eye bolts, nut and washer.
1,500 feet ¼-inch galvanized strand for anchors.
1 mile trolley wire.
2 trolley wire splicing sleeves.
352 protected rail bonds.

ONE MILE SINGLE-LINE FEED WIRE.

5 Feed Taps and Lightning Arresters per Mile.

44 wood cross arms.
44 pairs cross arm braces.
88 lag screws, 7 inches x ½ inch, and washers.
44 locust pins.
44 feed wire insulators.
1 section insulator.
44 pieces tie wire.
1 mile feed wire.
5 feed ears (deduct from straight line ears).
5 feed tap wires.
5 lightning arresters.
5 lightning arrester taps.
1 line cut-out switch.

EXTRAS FOR CURVES AND TURNOUTS,

Anchored at Both Ends.

Single Track Curve.

4 corner street poles (wood).
12 eye bolts, nut and washer.
7 single curve suspensions.
7 12-inch curve ears.
1 heavy terminal strain.
2 double strain ears.
8 globe strain insulators.
1,500 feet ¼-inch galvanized strand for anchors.
2 span wires (about 60 feet each).

200 Feet Turnout.

2 overhead switches.
4 frog pull-off strains.
10 single curve suspensions.
10 12-inch curve ears.
10 eye bolts, nut and washer.
2 heavy terminal strains.
8 globe strain insulators.
2 double strain ears.
1250 feet ¼-inch galvanized strand.
200 feet trolley wire.

MATERIAL REQUIRED FOR ONE MILE DOUBLE TRACK.

Wood Poles 120 Feet Apart—3 Anchors per Mile.

Span Construction.

88 side street poles (wood).
100 eye bolts, nut and washer.
44 span wires (probably 60 feet each).
88 straight line suspensions.
82 15-inch straight line ears.
6 15-inch double strain ears.
12 globe strain insulators.
1,600 feet ¼-inch galvanized strand for anchors.
2 miles trolley wire.
4 trolley wire splicing sleeves.
704 protected rail bonds (single bonding).

Bracket Construction.

50 centre street poles (wood).
88 flexible pipe brackets.
88 straight line suspensions.
82 15-inch straight line ears.
6 15-inch double strain ears.
12 globe strain insulators.
12 eye bolts, nut and washer.
1,600 feet ¼-inch galvanized strand for anchors.
2 miles trolley wire.
4 trolley wire splicing sleeves.
704 protected rail bonds (single bonding)

ONE MILE SINGLE-LINE FEED WIRE.

5 Feed Taps and Lightning Arresters per Mile.

44 wood cross arms.
44 pairs cross arm braces.
88 lag screws, 7 inches x ½ inch, and washers.
44 locust pins.
44 feed wire insulators.
1 section insulator.
44 pieces tie wire.
1 mile feed wire.
5 feed ears (deduct from straight line ears).
5 feed tap wires.
5 lightning arresters.
5 lightning arrester taps.
1 line cut-out switch.

EXTRAS FOR DOUBLE-TRACK CURVE,

Anchored at Both Ends.

4 corner street poles (wood).
12 eye bolts, nut and washer.
7 single curve suspensions.
7 double curve suspensions.
14 12-inch curve ears.
1 heavy terminal strain.
4 double strain ears.
8 globe strain insulators.
1,600 feet ¼-inch galvanized strand for anchors.
2 span wires (probably 60 feet each).
200 feet pull-off strand.



The above illustration will serve to give the contractor an idea of the proper size of conduit to use for different combinations of wires.

In some of these cases a slightly larger size of wire might be pulled in for very short runs, but actual practice has demonstrated that the above sizes are best adapted for general use.

INDEX.

This catalogue has no other index than the alphabetical one which runs throughout.

As the form of type for the index word is the same all through, the articles may be easily and quickly found.

Inasmuch as the catalogue numbers are the original numbers as used by the manufacturers, the same number may appear for more than one article.

It is requested, therefore, that in ordering goods from this catalogue, the customer will, to save delay, give *both the name and number* of each article wanted, as, —

" No. 9386 Socket,"
" No. 1900 Dry battery,"
" No. 5½ Insulator," etc., etc.,

using as far as practical the name under which the goods are listed here, even though they be known equally well by several other names.

To still further increase the efficiency of the catalogue for everyday use, a small list has been added at the beginning of each heading which consists of several different classes, that will serve to show the customer at a glance just what he will find listed under that heading, or a cross reference to the article sought.

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